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Access DB# 104471

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: HELEN PEZZUTO Examiner #: 70058 Date: 9/24/03  
Art Unit: 1713 Phone Number 308-2393 Serial Number: 10/081, 266  
Mail Box and Bldg/Room Location: CP3-8B18 Results Format Preferred (circle) PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: SEE ATTACHED

Inventors (please provide full names): ↓

Earliest Priority Filing Date: 2/21/01

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

- A polymerizable system having
- (a) an organoborane (see attached) - complexed (claim 8)  
(an initiator) (see cls. 9-10 & 11)
  - (b) a monomer (see cls. 9-10 & 11)
  - (c) a "work-life extending agent" (see structures in cls. 1 & 25)  
which is preferably an itaconic acid derivatives  
(see attached) (claim 22)
  - (d) a decomplexer (carboxylic acids - see attached)  
which reacts with the "amine" complex  
in the organoborane initiator system
- the system may be blended/admixed with a  
"core-shell" rubber (claim 14)

\* Please attach report to pages submitted herein.  
Many thanks!

\*\*\*\*\*

### STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>K. Fuller</u>	NA Sequence (#) <u>   </u>	STN <u>✓</u>
Searcher Phone #: <u>   </u>	AA Sequence (#) <u>   </u>	Dialog <u>   </u>
Searcher Location: <u>   </u>	Structure (#) <u>5</u>	Questel/Orbit <u>   </u>
Date Searcher Picked Up: <u>   </u>	Bibliographic <u>   </u>	Dr.Link <u>   </u>
Date Completed: <u>9/25/03</u>	Litigation <u>   </u>	Lexis/Nexis <u>   </u>
Searcher Prep & Review Time: <u>35</u>	Fulltext <u>   </u>	Sequence Systems <u>   </u>
Clerical Prep Time: <u>   </u>	Patent Family <u>   </u>	WWW/Internet <u>   </u>
Online Time: <u>60</u>	Other <u>   </u>	Other (specify) <u>   </u>

=> file reg

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STRUCTURE FILE UPDATES: 24 SEP 2003 HIGHEST RN 592465-25-3  
DICTIONARY FILE UPDATES: 24 SEP 2003 HIGHEST RN 592465-25-3

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when  
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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP  
PROPERTIES for more information. See STNote 27, Searching Properties  
in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> file hcaplus

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FILE COVERS 1907 - 25 Sep 2003 VOL 139 ISS 13  
FILE LAST UPDATED: 24 Sep 2003 (20030924/ED)

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=> d que 146

L9 16 SEA FILE=REGISTRY ABB=ON (108-30-5/BI OR 20882-04-6/BI OR  
2155-60-4/BI OR 223674-50-8/BI OR 2455-24-5/BI OR 454692-84-3/B  
I OR 454692-85-4/BI OR 454692-86-5/BI OR 454692-87-6/BI OR  
454692-88-7/BI OR 454692-89-8/BI OR 454692-90-1/BI OR 454692-91  
-2/BI OR 454692-92-3/BI OR 9002-88-4/BI OR 98-83-9/BI)  
L10 3 SEA FILE=REGISTRY ABB=ON L9 AND ITACONIC  
L11 1 SEA FILE=REGISTRY ABB=ON L10 NOT PMS/CI  
L12 281668 SEA FILE=REGISTRY ABB=ON PACR/PCT  
L13 227286 SEA FILE=REGISTRY ABB=ON (B(L)C(L)H)/ELS

*polyacrylics*  
*organo boron*

L14 3 SEA FILE=REGISTRY ABB=ON ("ITACONIC ACID"/CN OR "ITACONIC ACID .BETA.-BUTYL ESTER"/CN OR "ITACONIC ACID .BETA.-METHYL ESTER"/CN)  
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 L16 35 SEA FILE=REGISTRY ABB=ON L15 NOT PMS/CI  
 L17 4 SEA FILE=REGISTRY ABB=ON L11 OR L14  
 L18 36 SEA FILE=REGISTRY ABB=ON L16 OR L17  
 L19 369998 SEA FILE=HCAPLUS ABB=ON L12  
 L20 107088 SEA FILE=HCAPLUS ABB=ON L13  
 L21 3493 SEA FILE=HCAPLUS ABB=ON L18  
 L22 15 SEA FILE=HCAPLUS ABB=ON L19 AND L20 AND L21  
 L23 37 SEA FILE=HCAPLUS ABB=ON L19 AND L20 AND ?ITACON?  
 L24 2 SEA FILE=HCAPLUS ABB=ON L23 AND ?LIFE?  
 L26 3 SEA FILE=HCAPLUS ABB=ON L19 AND L20 AND ?ITACON?(L)MOA/RL  
 L27 94 SEA FILE=HCAPLUS ABB=ON L19 AND L20 AND ?LIFE?  
 L28 30 SEA FILE=HCAPLUS ABB=ON L27 AND (POLYMER? OR PLASTIC?)/SC  
 L29 18 SEA FILE=HCAPLUS ABB=ON L28 AND (PREP OR IMF OR SPN)/RL  
 L30 9 SEA FILE=HCAPLUS ABB=ON L29 AND (SYSTEM# OR COMPOSITION?)  
 L31 191 SEA FILE=HCAPLUS ABB=ON L19 AND L20 AND (STORE OR STORAGE OR STORING OR STORED)  
 L32 115 SEA FILE=HCAPLUS ABB=ON L31 AND (SYSTEM# OR COMPOSITION?)  
 L33 35 SEA FILE=HCAPLUS ABB=ON L32 AND (POLYMER? OR PLASTIC?)/SC  
 L34 21 SEA FILE=HCAPLUS ABB=ON L33 AND (PREP OR IMF OR SPN)/RL  
 L35 44 SEA FILE=HCAPLUS ABB=ON L22 OR L24 OR L26 OR L30 OR L34  
 L36 1 SEA FILE=HCAPLUS ABB=ON L23 AND DECOMPLEX?  
 L37 8 SEA FILE=HCAPLUS ABB=ON L19 AND L20 AND DECOMPLEX?  
 L38 51 SEA FILE=HCAPLUS ABB=ON (L35 OR L36 OR L37)  
 L39 1838 SEA FILE=REGISTRY ABB=ON L12 AND ITACON?  
 L40 4456 SEA FILE=HCAPLUS ABB=ON L39  
 L41 32 SEA FILE=HCAPLUS ABB=ON L20 AND L40  
 L42 22 SEA FILE=HCAPLUS ABB=ON L41 AND (PREP OR IMF OR SPN)/RL  
 L43 10 SEA FILE=HCAPLUS ABB=ON L42 AND (POLYMER? OR PLASTIC?)/SC  
 L44 57 SEA FILE=HCAPLUS ABB=ON L38 OR L43  
 L45 49 SEA FILE=HCAPLUS ABB=ON L44 AND (POLYMER? OR PLASTIC?)/SC  
 L46 47 SEA FILE=HCAPLUS ABB=ON L45 AND (PREP OR IMF OR SPN)/RL

=> d l46 bib abs hitind hitstr

L46 ANSWER 1 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:551556 HCAPLUS

DN 139:117815

TI Initiator systems comprising complexed organoborane initiators and .beta.-ketone compound **decomplexers** and bonding compositions made therewith

IN Moren, Dean M.

PA 3M Innovative Properties Company, USA

SO PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003057743	A2	20030717	WO 2002-US37493	20021122
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,			

KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
 MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK,  
 SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW,  
 AM, AZ, BY, KG

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG

PRAI US 2001-37074 A 20011231

OS MARPAT 139:117815

AB The invention provides initiator systems capable of initiating polymn.  
 More specifically, the invention relates to initiator systems comprising a  
 complexed initiator and a .beta.-ketone compd. **decomplexer**. The  
 invention further relates to the use of these initiator systems for  
 initiating polymn., as well as kits, bonding compns., and polymd. compns.  
 made therewith, and coated substrates and bonded articles prepd.  
 therefrom.

IC ICM C08F004-00

ICS C09J004-00; C08F220-28

CC 35-3 (Chemistry of Synthetic High **Polymers**)

Section cross-reference(s): 38

ST ketone **decomplexer** borane polymn catalyst adhesive

IT Naphthenic acids, uses

RL: MOA (Modifier or additive use); USES (Uses)  
 (copper salts; initiator systems comprising complexed organoborane  
 initiators and .beta.-ketone compd. **decomplexers** and bonding  
 compns. made therewith)

IT ABS rubber

RL: MOA (Modifier or additive use); USES (Uses)  
 (graft, Blendex 360; initiator systems comprising complexed  
 organoborane initiators and .beta.-ketone compd. **decomplexers**  
 and bonding compns. made therewith)

IT Adhesives

Polymerization catalysts  
 (initiator systems comprising complexed organoborane initiators and  
 .beta.-ketone compd. **decomplexers** and bonding compns. made  
 therewith)

IT 106677-58-1

RL: MOA (Modifier or additive use); USES (Uses)  
 (abs rubber, graft, Blendex 360; initiator systems comprising complexed  
 organoborane initiators and .beta.-ketone compd. **decomplexers**  
 and bonding compns. made therewith)

IT 85-42-7, Hexahydrophthalic anhydride 102-01-2, Acetoacetanilide  
 105-45-3, Methyl acetoacetate 108-30-5, Succinic anhydride, uses  
 108-31-6, Maleic anhydride, uses 108-55-4, Glutaric anhydride  
 141-97-9, Ethyl acetoacetate 760-93-0, Methacrylic anhydride  
 1694-31-1, tert-Butyl acetoacetate 2044-64-6, N,N-Dimethylacetoacetamide  
 2170-03-8, **Itaconic** anhydride 2469-99-0, Acetoacetonitrile  
 5977-14-0, Acetoacetamide 20306-75-6, N-Methylacetoacetamide  
 21282-97-3, 2-Methacryloyloxyethyl acetoacetate 25248-42-4,  
 Polycaprolactone 26873-71-2

RL: MOA (Modifier or additive use); USES (Uses)  
 (**decomplexer**; initiator systems comprising complexed  
 organoborane initiators and .beta.-ketone compd. **decomplexers**  
 and bonding compns. made therewith)

IT 97-94-9, Triethylborane 124-09-4, 1,6-Hexanediamine, uses

RL: CAT (Catalyst use); USES (Uses)  
 (initiator systems comprising complexed organoborane initiators and



- .beta.-ketone compd. **decomplexers** and bonding compns. made therewith)
- IT 25035-85-2P, Tetrahydrofurfuryl methacrylate homopolymer  
28452-66-6P, Dibutyl itaconate homopolymer  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(initiator systems comprising complexed organoborane initiators and .beta.-ketone compd. **decomplexers** and bonding compns. made therewith)
- IT 149-11-1, Copper(II) 2-ethyl hexanoate 7787-70-4, Copper(I) bromide 7789-43-7, Cobalt(II) bromide 7789-45-9, Copper(II) bromide 7789-46-0, Iron(II) bromide 10031-25-1, Chromium bromide 10125-13-0, Copper(II) chloride dihydrate 12738-03-3, Manganese bromide 13444-94-5, Palladium bromide. 13462-88-9, Nickel(II) bromide 13470-26-3, Vanadium bromide 14014-88-1, Ruthenium tribromide 34946-82-2, Copper(II) trifluoromethanesulfonate 38465-60-0, Copper(II) tetrafluoroborate 153067-72-2, Antimony bromide  
RL: MOA (Modifier or additive use); USES (Uses)  
(initiator systems comprising complexed organoborane initiators and .beta.-ketone compd. **decomplexers** and bonding compns. made therewith)
- IT 106677-58-1  
RL: MOA (Modifier or additive use); USES (Uses)  
(abs rubber, graft, Blendex 360; initiator systems comprising complexed organoborane initiators and .beta.-ketone compd. **decomplexers** and bonding compns. made therewith)
- RN 106677-58-1 HCAPLUS  
CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene, graft (9CI) (CA INDEX NAME)

CM 1

CRN 107-13-1

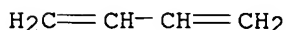
CMF C3 H3 N



CM 2

CRN 106-99-0

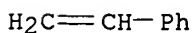
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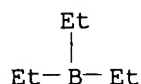
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CRN 100-42-5

CMF C8 H8



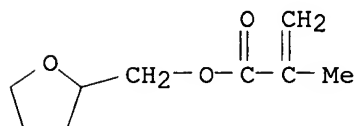
IT **97-94-9**, Triethylborane  
 RL: CAT (Catalyst use); USES (Uses)  
 (initiator systems comprising complexed organoborane initiators and  
 .beta.-ketone compd. **decomplexers** and bonding compns. made  
 therewith)  
 RN 97-94-9 HCAPLUS  
 CN Borane, triethyl- (8CI, 9CI) (CA INDEX NAME)



IT **25035-85-2P**, Tetrahydrofurfuryl methacrylate homopolymer  
**28452-66-6P**, Dibutyl itaconate homopolymer  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered  
 material use); **PREP (Preparation)**; USES (Uses)  
 (initiator systems comprising complexed organoborane initiators and  
 .beta.-ketone compd. **decomplexers** and bonding compns. made  
 therewith)  
 RN 25035-85-2 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, (tetrahydro-2-furanyl)methyl ester,  
 homopolymer (9CI) (CA INDEX NAME)

CM 1

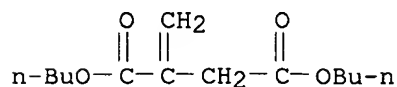
CRN 2455-24-5  
 CMF C9 H14 O3



RN 28452-66-6 HCAPLUS  
 CN Butanedioic acid, methylene-, dibutyl ester, homopolymer (9CI) (CA INDEX  
 NAME)

CM 1

CRN 2155-60-4  
 CMF C13 H22 O4



=> d 146 bib abs hitind hitstr 2-47

L46 ANSWER 2 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:508630 HCAPLUS

DN 139:86290

TI Thermosetting resin **composition** and semiconductor device  
packaged by the **composition**

IN Okubo, Akiko; Go, Yoshiyuki

PA Sumitomo Bakelite Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003183519	A2	20030703	JP 2001-388349	20011220
PRAI	JP 2001-388349		20011220		

AB The **compn.** contains a thermosetting resin and a (substituted) vinylpyridine (co)polymer (deriv.) as a crosslinking accelerator. The semiconductor device is that packaged by the **compn.** showing enhanced curability and **storage** stability. Thus, a **compn.** of biphenyl-type epoxy resin (YX 4000H) 52, phenol aralkyl resin (XL 3L) 48, poly(2-vinylpyridine) 0.32, spherical fused silica 500, carbon black 2, brominated epoxy resin 2, and carnauba wax 2 parts was melt-kneaded and pulverized to give a **compn.** showing 85% retention of initial spiral flow after 1-wk **storage** at 30.degree. and torque after 45 s at 175.degree. 7.7 N-m.

IC ICM C08L101-00  
ICS C08G059-42; C08K003-00; C08L039-08; C08L063-00; H01L023-29;  
H01L023-31

CC 38-3 (**Plastics** Fabrication and Uses)  
Section cross-reference(s): 76

ST thermosetting resin **compn storage** stability  
curability; polyvinylpyridine epoxy resin electronic packaging material;  
semiconductor device packaging thermosetting resin polyvinylpyridine;  
crosslinking accelerator vinylpyridine polymer thermosetting resin

IT Polyimides, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(bismaleimide-based; thermosetting resin **compn.** contg. vinylpyridine polymer as crosslinking accelerator for semiconductor packaging material)

IT Epoxy resins, uses  
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(brominated, polymer with epoxy resin and phenol aralkyl resin; thermosetting resin **compn.** contg. vinylpyridine polymer as crosslinking accelerator for semiconductor packaging material)

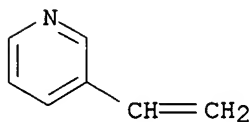
IT Polybenzyls  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(hydroxy-contg., crosslinking agents; thermosetting resin **compn.** contg. vinylpyridine polymer as crosslinking accelerator for semiconductor packaging material)

IT Quaternary ammonium compounds, uses  
RL: CAT (Catalyst use); **IMF (Industrial manufacture)**; **PREP (Preparation)**; USES (Uses)  
(polymers; thermosetting resin **compn.** contg. vinylpyridine polymer as crosslinking accelerator for semiconductor packaging material)

- IT Crosslinking catalysts  
Electronic packaging materials  
Semiconductor devices  
(thermosetting resin **compn.** contg. vinylpyridine polymer as crosslinking accelerator for semiconductor packaging material)
- IT Epoxy resins, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(thermosetting resin **compn.** contg. vinylpyridine polymer as crosslinking accelerator for semiconductor packaging material)
- IT Plastics, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(thermosetting; thermosetting resin **compn.** contg. vinylpyridine polymer as crosslinking accelerator for semiconductor packaging material)
- IT 506438-38-6, XL 3L  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(crosslinking agent; thermosetting resin **compn.** contg. vinylpyridine polymer as crosslinking accelerator for semiconductor packaging material)
- IT 25014-15-7DP, 2-Vinylpyridine homopolymer, quaternary salts 25014-15-7P, Poly(2-vinylpyridine) 26222-40-2DP, quaternary salts 26222-40-2P, Styrene-4-vinylpyridine copolymer **32069-97-9DP**, quaternary salts **53992-98-6DP**, quaternary salts with vinylpyridine homopolymer 58512-23-5DP, quaternary salts with vinylpyridine homopolymer 61857-43-0DP, quaternary salts with vinylpyridine homopolymer **182235-73-0DP**, quaternary salts with vinylpyridine homopolymer 552855-55-7DP, quaternary salts  
RL: CAT (Catalyst use); **IMF (Industrial manufacture); PREP (Preparation); USES (Uses)**  
(thermosetting resin **compn.** contg. vinylpyridine polymer as crosslinking accelerator for semiconductor packaging material)
- IT 30352-38-6P 505036-99-7P  
RL: **IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**  
(thermosetting resin **compn.** contg. vinylpyridine polymer as crosslinking accelerator for semiconductor packaging material)
- IT 89118-70-7DP, YX 4000H, polymer with phenol aralkyl resin and brominated epoxy resin  
RL: **IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**  
(thermosetting resin **compn.** contg. vinylpyridine polymer as crosslinking accelerator for semiconductor packaging material)
- IT **32069-97-9DP**, quaternary salts **53992-98-6DP**, quaternary salts with vinylpyridine homopolymer **182235-73-0DP**, quaternary salts with vinylpyridine homopolymer  
RL: CAT (Catalyst use); **IMF (Industrial manufacture); PREP (Preparation); USES (Uses)**  
(thermosetting resin **compn.** contg. vinylpyridine polymer as crosslinking accelerator for semiconductor packaging material)
- RN 32069-97-9 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 3-ethenylpyridine (9CI) (CA INDEX NAME)

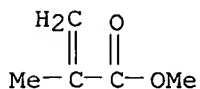
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CRN 1121-55-7  
CMF C7 H7 N

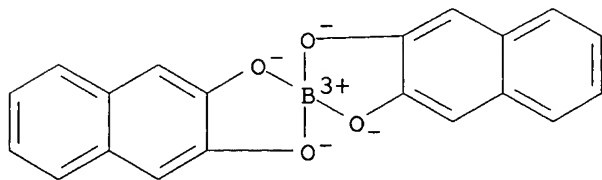


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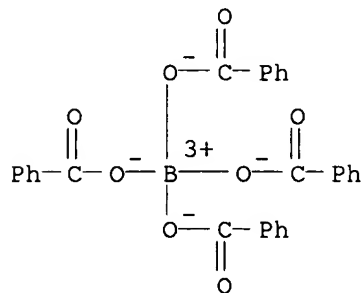
CRN 80-62-6  
CMF C5 H8 O2



RN 53992-98-6 HCAPLUS  
CN Borate(1-), bis[2,3-naphthalenediolato(2-)-.kappa.O,.kappa.O']-, (T-4)-  
(9CI) (CA INDEX NAME)



RN 182235-73-0 HCAPLUS  
CN Borate(1-), tetrakis(benzoato-.kappa.O)- (9CI) (CA INDEX NAME)



L46 ANSWER 3 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 2002:827483 HCAPLUS  
DN 137:312138  
TI One-component epoxy resin **compositions** and electronic devices  
using the **compositions**  
IN Shibata, Tomoaki

PA Toshiba Chemical Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002317028	A2	20021031	JP 2001-122254	20010420
PRAI	JP 2001-122254		20010420		

AB The compns., showing prolonged pot **life** for elec. insulation of electronic devices, contain resins contg. arom. glydicylamine-type epoxy resins, antifoaming agents, and wetting agents and latent hardeners contg. BF<sub>3</sub>-amine complexes. The elec. devices are those elec. insulated by the epoxy resins, preferably, rotors in vacuum cleaners, etc. Thus, bisphenol A diglycidyl ether (EP 4100) 90, diglycidyl-o-toluidine (GOT) 10, an antifoaming agent (TSA 720) 0.1, a wetting agent (Modaflow) 0.1, and BF<sub>3</sub> isopropylamine adduct 10 parts were mixed to give the **compn.** showing good pot **life** and good adhesion to substrates.

IC ICM C08G059-10  
 ICS C08G059-72; C08K005-00; C08L063-00; H01B003-40

CC 38-3 (**Plastics** Fabrication and Uses)  
 Section cross-reference(s): 76

ST one component epoxy resin pot **life**; elec insulation epoxy resin elec device; arom glycidylamine epoxy resin elec insulator; trifluoroborane isopropylamine complex latent hardener; antifoaming agent epoxy resin elec insulator; wetting agent epoxy resin elec insulator

IT Polysiloxanes, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (TSA 720, antifoaming agent; in one-component epoxy resin compns. with prolonged pot **life** for elec. insulation of electronic devices)

IT Antifoaming agents  
 Wetting agents  
 (in one-component epoxy resin compns. with prolonged pot **life** for elec. insulation of electronic devices)

IT Electric insulators  
 (one-component epoxy resin compns. with prolonged pot **life** for elec. insulation of electronic devices)

IT Epoxy resins, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (one-component epoxy resin compns. with prolonged pot **life** for elec. insulation of electronic devices)

IT **3776-04-3**  
 RL: CAT (Catalyst use); USES (Uses)  
 (latent hardener; one-component epoxy resin compns. with prolonged pot **life** for elec. insulation of electronic devices)

IT 124741-07-7P 472985-33-4P  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (one-component epoxy resin compns. with prolonged pot **life** for elec. insulation of electronic devices)

IT **26376-86-3**, Modaflow  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (wetting agent; in one-component epoxy resin compns. with prolonged pot **life** for elec. insulation of electronic devices)

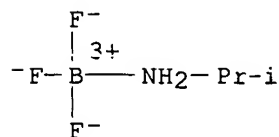
IT 3776-04-3

RL: CAT (Catalyst use); USES (Uses)

(latent hardener; one-component epoxy resin compns. with prolonged pot  
life for elec. insulation of electronic devices)

RN 3776-04-3 HCAPLUS

CN Boron, trifluoro(2-propanamine)-, (T-4)- (9CI) (CA INDEX NAME)



IT 26376-86-3, Modaflow

RL: MOA (Modifier or additive use); TEM (Technical or engineered material  
use); USES (Uses)

(wetting agent; in one-component epoxy resin compns. with prolonged pot  
life for elec. insulation of electronic devices)

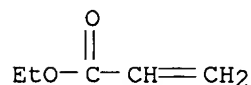
RN 26376-86-3 HCAPLUS

CN 2-Propenoic acid, ethyl ester, polymer with 2-ethylhexyl 2-propenoate  
(9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5

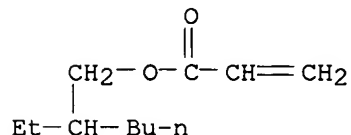
CMF C5 H8 O2



CM 2

CRN 103-11-7

CMF C11 H20 O2



L46 ANSWER 4 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:676063 HCAPLUS

DN 137:218032

TI Polymerizable **system** with a long work-life for  
adhesives

IN Marhevka, Virginia C.; Deviny, E. John

PA 3M Innovative Properties Company, USA

SO PCT Int. Appl., 51 pp.

*applicants*

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002068479	A2	20020906	WO 2002-US5758	20020221
	WO 2002068479	A3	20021212		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2002161155	A1	20021031	US 2002-81266	20020221
PRAI	US 2001-270221P	P	20010221		
OS	MARPAT 137:218032				
AB	The polymerizable <b>system</b> comprises an organoborane, .gtoreq.1 polymerizable monomer, and a work-life extending agent or activator. An adhesive was prepd. by combining a catalyst contg. triethylborane hexamethylenediamine complex with a monomer soln. contg. SR 203 9.3, ethylhexyl methacrylate 31.6, succinic anhydride 0.46, NK Ester SA 9.84, and di-Bu <b>itaconate</b> 6 parts, filler, and impact modifier. The adhesive showed overlap shear strength (HDPE parts) 1044 psi and 787 psi, initially and after 7 min; vs. 983 psi and not detd., resp., for adhesive without di-Bu <b>itaconate</b> .				
IC	ICM C08F004-52				
	ICS C09J004-00				
CC	38-3 (Plastics Fabrication and Uses)				
	Section cross-reference(s): 37				
ST	dibutyl <b>itaconate</b> work life extender polymerizable adhesive; organoborane amine complex catalyst adhesive				
IT	Adhesives				
	(polymerizable <b>system</b> with a long work-life polymerizable additive for)				
IT	98-83-9DP, .alpha.-Methylstyrene, urea deriv., polymer with di-Bu <b>itaconate</b> , NK Ester SA, and methacrylate 108-30-5DP, Succinic anhydride, polymer with di-Bu <b>itaconate</b> , NK Ester SA, and methacrylate and methylstyrene deriv. <b>2155-60-4DP</b> , Dibutyl <b>itaconate</b> , polymer with NK Ester SA, succinic anhydride, and methacrylate and methylstyrene deriv. 2455-24-5DP, SR 203, polymer with di-Bu <b>itaconate</b> , NK Ester SA, and methylstyrene deriv. 20882-04-6DP, NK Ester SA, polymer with di-Bu <b>itaconate</b> , succinic anhydride, and methacrylate and methylstyrene deriv. <b>454692-84-3P</b> , Dibutyl <b>itaconate</b> -2-ethylhexyl methacrylate-NK Ester SA-succinic anhydride-SR 203 copolymer <b>454692-85-4P</b> , 2-Ethylhexyl methacrylate- <b>itaconic</b> anhydride-monobutyl <b>itaconate</b> -SR 203 copolymer <b>454692-86-5P</b> , 2-Ethylhexyl methacrylate-monobutyl <b>itaconate</b> -succinic anhydride-SR 203 copolymer <b>454692-87-6P</b> , 2-Ethylhexyl methacrylate-dimethyl <b>itaconate</b> -NK Ester SA-succinic anhydride-SR 203 copolymer <b>454692-88-7P</b> , <b>454692-89-8P</b> , 2-Ethylhexyl methacrylate-NK Ester SA-allylsuccinic anhydride-SR 203 copolymer <b>454692-90-1P</b> , 2-Ethylhexyl methacrylate;NK Ester SA;2-octen-1-ylsuccinic anhydride;SR 203 copolymer				



**454692-91-2P**, 2-Ethylhexyl methacrylate;NK Ester  
SA;isobutenylsuccinic anhydride;SR 203 copolymer **454692-92-3P**,  
2-Ethylhexyl methacrylate-NK Ester SA-**itaconic** anhydride-SR 203  
copolymer

RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM  
(Technical or engineered material use); **PREP (Preparation)**; USES  
(Uses)

(adhesive with long work-life)

IT **223674-50-8**

RL: CAT (Catalyst use); USES (Uses)

(polymerizable **system** with a long work-life

polymerizable additive for adhesives for bonding)

IT 9002-88-4, HDPE

RL: MSC (Miscellaneous)

(polymerizable **system** with a long work-life

polymerizable additive for adhesives for bonding)

IT **2155-60-4DP**, Dibutyl **itaconate**, polymer with NK Ester

SA, succinic anhydride, and methacrylate and methylstyrene deriv.

**454692-84-3P**, Dibutyl **itaconate**-2-ethylhexyl

methacrylate-NK Ester SA-succinic anhydride-SR 203 copolymer

**454692-85-4P**, 2-Ethylhexyl methacrylate-**itaconic**

anhydride-monobutyl **itaconate**-SR 203 copolymer

**454692-86-5P**, 2-Ethylhexyl methacrylate-monobutyl

**itaconate**-succinic anhydride-SR 203 copolymer **454692-87-6P**

, 2-Ethylhexyl methacrylate-dimethyl **itaconate**-NK Ester

SA-succinic anhydride-SR 203 copolymer **454692-88-7P**

**454692-89-8P**, 2-Ethylhexyl methacrylate-NK Ester SA-allylsuccinic

anhydride-SR 203 copolymer **454692-90-1P**, 2-Ethylhexyl

methacrylate;NK Ester SA;2-octen-1-ylsuccinic anhydride;SR 203 copolymer

**454692-91-2P**, 2-Ethylhexyl methacrylate;NK Ester

SA;isobutenylsuccinic anhydride;SR 203 copolymer **454692-92-3P**,

2-Ethylhexyl methacrylate-NK Ester SA-**itaconic** anhydride-SR 203

copolymer

RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM

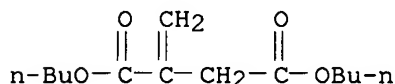
(Technical or engineered material use); **PREP (Preparation)**; USES

(Uses)

(adhesive with long work-life)

RN 2155-60-4 HCAPLUS

CN Butanedioic acid, methylene-, dibutyl ester (9CI) (CA INDEX NAME)



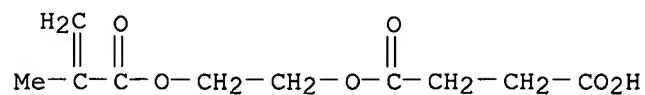
RN 454692-84-3 HCAPLUS

CN Butanedioic acid, methylene-, dibutyl ester, polymer with  
dihydro-2,5-furandione, 2-ethylhexyl 2-methyl-2-propenoate,  
2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl hydrogen butanedioate and  
(tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 20882-04-6

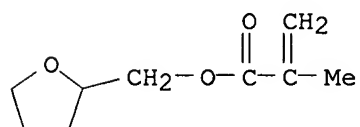
CMF C10 H14 O6



CM 2

CRN 2455-24-5

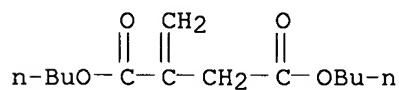
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CM 3

CRN 2155-60-4

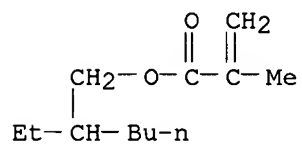
CMF C13 H22 O4



CM 4

CRN 688-84-6

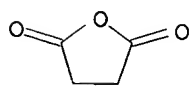
CMF C12 H22 O2



CM 5

CRN 108-30-5

CMF C4 H4 O3



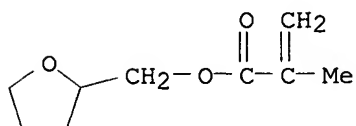
RN 454692-85-4 HCAPLUS

CN Butanedioic acid, methylene-, monobutyl ester, polymer with  
dihydro-3-methylene-2,5-furandione, 2-ethylhexyl 2-methyl-2-propenoate and  
(tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2455-24-5

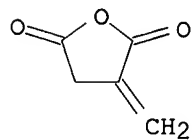
CMF C9 H14 O3



CM 2

CRN 2170-03-8

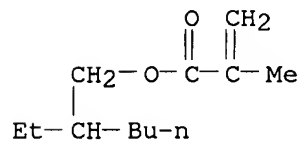
CMF C5 H4 O3



CM 3

CRN 688-84-6

CMF C12 H22 O2



CM 4

CRN 27216-48-4

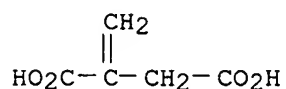
CMF C9 H14 O4

CCI IDS

CM 5

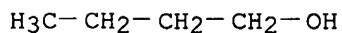
CRN 97-65-4

CMF C5 H6 O4



CM 6

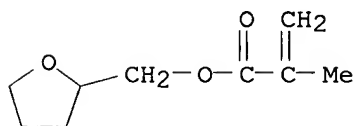
CRN 71-36-3  
CMF C4 H10 O



RN 454692-86-5 HCAPLUS  
CN Butanedioic acid, methylene-, monobutyl ester, polymer with  
dihydro-2,5-furandione, 2-ethylhexyl 2-methyl-2-propenoate and  
(tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

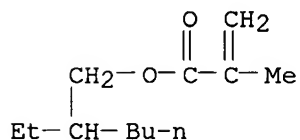
CM 1

CRN 2455-24-5  
CMF C9 H14 O3



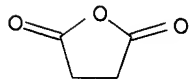
CM 2

CRN 688-84-6  
CMF C12 H22 O2



CM 3

CRN 108-30-5  
CMF C4 H4 O3

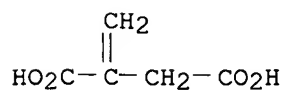


CM 4

CRN 27216-48-4  
CMF C9 H14 O4  
CCI IDS

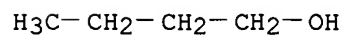
CM 5

CRN 97-65-4  
CMF C5 H6 O4



CM 6

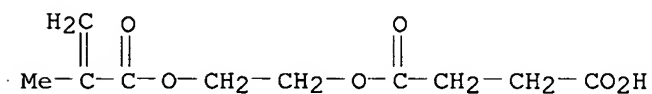
CRN 71-36-3  
CMF C4 H10 O



RN 454692-87-6 HCAPLUS  
CN Butanedioic acid, methylene-, dimethyl ester, polymer with dihydro-2,5-furandione, 2-ethylhexyl 2-methyl-2-propenoate, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl hydrogen butanedioate and (tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

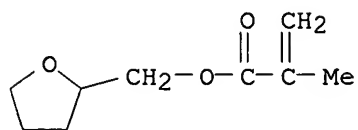
CM 1

CRN 20882-04-6  
CMF C10 H14 O6



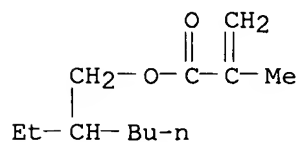
CM 2

CRN 2455-24-5  
CMF C9 H14 O3



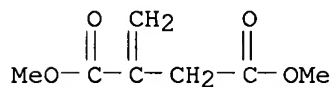
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CRN 688-84-6  
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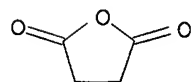
CM 4

CRN 617-52-7  
CMF C7 H10 O4



CM 5

CRN 108-30-5  
CMF C4 H4 O3



RN 454692-88-7 HCAPLUS  
CN Butanedioic acid, methylene-, dibutyl ester, polymer with Craynor CN 965, dihydro-2,5-furandione and (tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

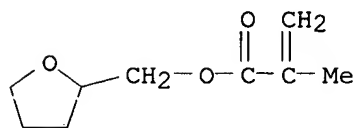
CM 1

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CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

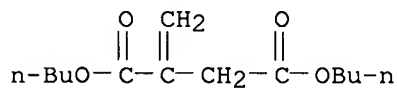
CM 2

CRN 2455-24-5  
CMF C9 H14 O3



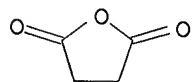
CM 3

CRN 2155-60-4  
CMF C13 H22 O4



CM 4

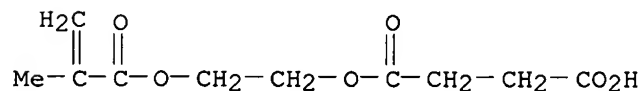
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CMF C4 H4 O3



RN 454692-89-8 HCAPLUS  
CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with dihydro-3-(2-propenyl)-2,5-furandione, 2-ethylhexyl 2-methyl-2-propenoate and (tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

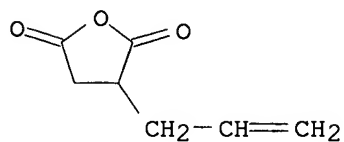
CM 1

CRN 20882-04-6  
CMF C10 H14 O6



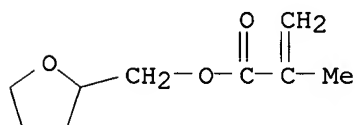
CM 2

CRN 7539-12-0  
CMF C7 H8 O3



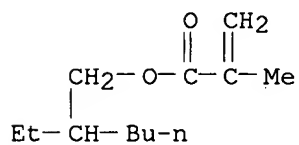
CM 3

CRN 2455-24-5  
CMF C9 H14 O3



CM 4

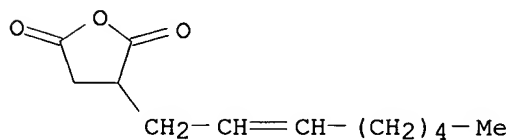
CRN 688-84-6  
CMF C12 H22 O2



RN 454692-90-1 HCAPLUS  
CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester,  
polymer with dihydro-3-(2-octenyl)-2,5-furandione, 2-ethylhexyl  
2-methyl-2-propenoate and (tetrahydro-2-furanyl)methyl  
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

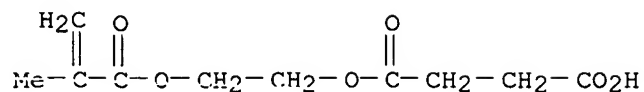
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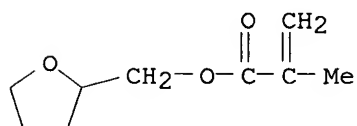
CM 2

CRN 20882-04-6  
CMF C10 H14 O6



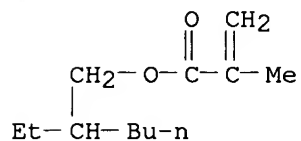
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CMF C9 H14 O3



CM 4

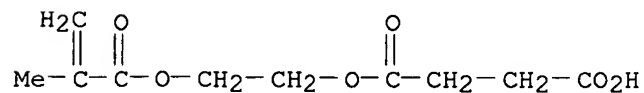
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CMF C12 H22 O2



RN 454692-91-2 HCAPLUS  
CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 2-ethylhexyl 2-methyl-2-propenoate and (tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

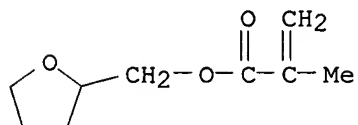
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CRN 20882-04-6  
CMF C10 H14 O6



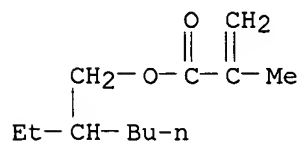
CM 2

CRN 2455-24-5  
CMF C9 H14 O3



CM 3

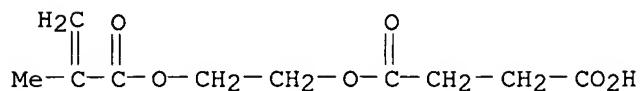
CRN 688-84-6  
CMF C12 H22 O2



RN 454692-92-3 HCAPLUS  
CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester,  
polymer with dihydro-3-methylene-2,5-furandione, 2-ethylhexyl  
2-methyl-2-propenoate and (tetrahydro-2-furanyl)methyl  
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

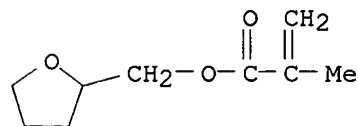
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CMF C10 H14 O6



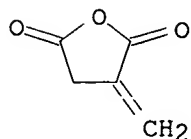
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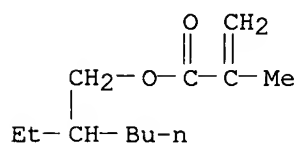
CM 3

CRN 2170-03-8  
CMF C5 H4 O3



CM 4

CRN 688-84-6  
CMF C12 H22 O2



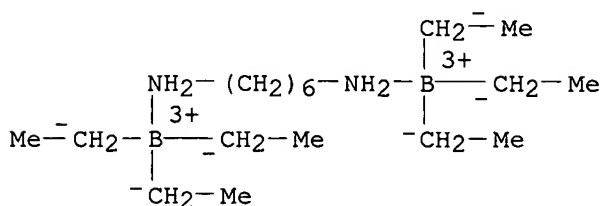
IT 223674-50-8

RL: CAT (Catalyst use); USES (Uses)

(polymerizable **system** with a long work-life  
polymerizable additive for adhesives for bonding)

RN 223674-50-8 HCAPLUS

CN Boron, hexaethyl[.mu.-(1,6-hexanediamine-.kappa.N:.kappa.N')]di- (9CI)  
(CA INDEX NAME)



L46 ANSWER 5 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:508451 HCAPLUS

DN 137:201642

TI Chain-transfer reaction in the radical polymerization of Di-n-butyl itaconate at high temperatures

AU Hirano, Tomohiro; Takeyoshi, Ryoko; Seno, Makiko; Sato, Tsuneyuki

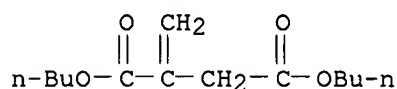
CS Department of Chemical Science and Technology, Faculty of Engineering, Tokushima University, Tokushima, 770-8506, Japan

SO Journal of Polymer Science, Part A: Polymer Chemistry (2002), 40(14), 2415-2426

CODEN: JPACEC; ISSN: 0887-624X

PB John Wiley & Sons, Inc.  
 DT Journal  
 LA English  
 AB Radical polymns. of di-Bu itaconate were investigated. Unexpected resonances (C resonances) were obsd. in  $^{13}\text{C}$  NMR spectra of C=O of poly(di-Bu itaconates) [poly(DBIs)] obtained at temps. higher than 60.degree.C, although two kinds of carbonyl groups showed splittings due to triad tacticities in the spectra of polymers obtained at lower temps. The poly(DBIs) formed by the different kinds of initiators or formed in the presence of chain-transfer agents showed hardly any changes in the intensities of the C resonances; this indicated that the C resonances were not due to the structures formed through initiating and terminating reactions. The poly(DBIs) obtained at different yields showed only a slight increase in the intensities of the C resonances with the yield, which suggested that the C resonances were not attributable to the intermol. chain-transfer reaction to the monomer and/or polymer. However, the intensities of the C resonances significantly increased with a decreasing feed monomer concn.; this suggested that intramol. chain-transfer reactions took place at high temps. Furthermore, a Cu complex-catalyzed atom transfer radical polymn. mechanism was revealed to be effective for suppressing the intramol. chain-transfer reaction at 60.degree.C.

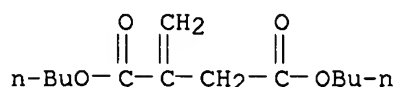
CC 35-3 (Chemistry of Synthetic High **Polymers**)  
 IT **2155-60-4**, Dibutyl itaconate  
 RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)  
 (chain-transfer reaction in radical polymn. at high temps.)  
 IT **28452-66-6P**, Dibutyl itaconate homopolymer  
 RL: PRP (Properties); **SPN (Synthetic preparation); PREP (Preparation)**  
 (chain-transfer reaction in radical prepn. at high temps.)  
 IT **122-56-5**, Tributylborane  
 RL: CAT (Catalyst use); USES (Uses)  
 (tacticity of poly(di-Bu itaconate) prepd. in presence of)  
 IT **2155-60-4**, Dibutyl itaconate  
 RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)  
 (chain-transfer reaction in radical polymn. at high temps.)  
 RN 2155-60-4 HCAPLUS  
 CN Butanedioic acid, methylene-, dibutyl ester (9CI) (CA INDEX NAME)



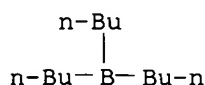
IT **28452-66-6P**, Dibutyl itaconate homopolymer  
 RL: PRP (Properties); **SPN (Synthetic preparation); PREP (Preparation)**  
 (chain-transfer reaction in radical prepn. at high temps.)  
 RN 28452-66-6 HCAPLUS  
 CN Butanedioic acid, methylene-, dibutyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2155-60-4  
 CMF C13 H22 O4



IT 122-56-5, Tributylborane  
 RL: CAT (Catalyst use); USES (Uses)  
 (tacticity of poly(di-Bu itaconate) prepd. in presence of)  
 RN 122-56-5 HCAPLUS  
 CN Borane, tributyl- (8CI, 9CI) (CA INDEX NAME)



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 6 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2002:129291 HCAPLUS  
 DN 136:185027  
 TI Thermosetting resin adhesive **composition** containing  
 phosphorus-based fireproofing agent for semiconductor device and cover lay  
 film, adhesive sheet, and flexible printed circuit board using the  
**composition**  
 IN Yamamoto, Tetsuya; Suzuki, Yoshio  
 PA Toray Industries, Inc., Japan  
 SO Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002053833	A2	20020219	JP 2000-238496	20000807
PRAI	JP 2000-238496		20000807		
OS	MARPAT 136:185027				

AB The halogen-free adhesive **compn.**, showing **storage**  
 stability, solder heat resistance, etc., contains 100 parts of an epoxy  
 resin, 20-200 parts of a carboxy-contg. acrylonitrile-butadiene rubber,  
 0.01-50 parts of a hardener, 10-100 parts inorg. particles having  
 aminosilanes on the surface, and a P-type fireproofing agent. The  
 adhesive sheet is that having the adhesive layer sandwiched between  
 release films. The cover lay film is that using the adhesive  
**compn.** The flexible printed circuit board has an elec. insulating  
 plastic film and a Cu foil laminated through the adhesive **compn.**  
 Thus, 40 parts of a MePh dispersion of powd. SiO<sub>2</sub> (Admafine SO25R) treated  
 with 2% 3-aminopropyltriethoxysilane, 50 parts carboxy-contg. nitrile  
 rubber (Nipol 1072), 75 parts P-contg. epoxy resin (FX-279BEK75), 25 parts  
 Br-free epoxy resin (Epikote 834), 5 parts polyester (Vylon 300), 8 parts  
 3,3'-diaminodiphenyl sulfone, 0.4 part BF<sub>3</sub>-monoethylamine complex, and MEK  
 were mixed to give the adhesive **compn.**, which was applied on a  
 polyimide (Kapton 100H) film, dried at 150.degree. for 5 min, and  
 laminated with a release paper to give a cover lay film showing UL-94  
 flame retardance V-0.

IC ICM C09J163-00  
ICS B32B007-12; B32B015-08; C08G059-40; C09J007-00; C09J007-02;  
C09J011-06; C09J113-00; C09K021-12; C09K021-14

CC 38-3 (**Plastics** Fabrication and Uses)  
Section cross-reference(s): 76

ST thermosetting resin adhesive printed circuit board; phosphorus  
fireproofing agent epoxy resin adhesive; carboxy contg nitrile rubber  
epoxy resin; aminosilane surface treated inorg powder adhesive; flexible  
printed circuit board thermosetting adhesive; solder heat resistance  
adhesive circuit board; **storage** stability epoxy resin adhesive

IT Nitrile rubber, uses  
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
PRP (Properties); TEM (Technical or engineered material use); **PREP**  
(**Preparation**); USES (Uses)  
(carboxy-contg., reaction product with epoxy resin and polyester;  
thermosetting epoxy resin-based adhesive contg. phosphorus-type  
fireproofing agent for flexible printed circuit board)

IT Polyesters, uses  
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
PRP (Properties); TEM (Technical or engineered material use); **PREP**  
(**Preparation**); USES (Uses)  
(reaction product with carboxy-contg. nitrile rubber and epoxy resin;  
thermosetting epoxy resin-based adhesive contg. phosphorus-type  
fireproofing agent for flexible printed circuit board)

IT Epoxy resins, uses  
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
PRP (Properties); TEM (Technical or engineered material use); **PREP**  
(**Preparation**); USES (Uses)  
(reaction product with carboxy-contg. nitrile rubber and polyester;  
thermosetting epoxy resin-based adhesive contg. phosphorus-type  
fireproofing agent for flexible printed circuit board)

IT **75-23-0**, Boron trifluoride-monoethylamine complex  
RL: CAT (Catalyst use); USES (Uses)  
(crosslinking accelerator; thermosetting epoxy resin-based adhesive  
contg. phosphorus-type fireproofing agent for flexible printed circuit  
board)

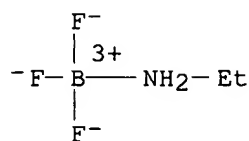
IT **9003-18-3P**  
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
PRP (Properties); TEM (Technical or engineered material use); **PREP**  
(**Preparation**); USES (Uses)  
(nitrile rubber, carboxy-contg., reaction product with epoxy resin and  
polyester; thermosetting epoxy resin-based adhesive contg.  
phosphorus-type fireproofing agent for flexible printed circuit board)

IT **399508-04-4P**  
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
PRP (Properties); TEM (Technical or engineered material use); **PREP**  
(**Preparation**); USES (Uses)  
(thermosetting epoxy resin-based adhesive contg. phosphorus-type  
fireproofing agent for flexible printed circuit board)

IT **75-23-0**, Boron trifluoride-monoethylamine complex  
RL: CAT (Catalyst use); USES (Uses)  
(crosslinking accelerator; thermosetting epoxy resin-based adhesive  
contg. phosphorus-type fireproofing agent for flexible printed circuit  
board)

RN 75-23-0 HCAPLUS

CN Boron, (ethanamine)trifluoro-, (T-4)- (9CI) (CA INDEX NAME)



IT 9003-18-3P

RL: IMF (Industrial manufacture); POF (Polymer in formulation);

PRP (Properties); TEM (Technical or engineered material use); PREP

(Preparation); USES (Uses)

(nitrile rubber, carboxy-contg., reaction product with epoxy resin and polyester; thermosetting epoxy resin-based adhesive contg.

phosphorus-type fireproofing agent for flexible printed circuit board)

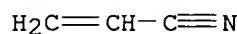
RN 9003-18-3 HCAPLUS

CN 2-Propenenitrile, polymer with 1,3-butadiene (9CI) (CA INDEX NAME)

CM 1

CRN 107-13-1

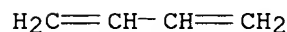
CMF C3 H3 N



CM 2

CRN 106-99-0

CMF C4 H6



IT 399508-04-4P

RL: IMF (Industrial manufacture); POF (Polymer in formulation);

PRP (Properties); TEM (Technical or engineered material use); PREP

(Preparation); USES (Uses)

(thermosetting epoxy resin-based adhesive contg. phosphorus-type fireproofing agent for flexible printed circuit board)

RN 399508-04-4 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,3-butadiene, (chloromethyl)oxirane, decanedioic acid, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, FX 279BEK75, 4,4'-(1-methylethylidene)bis[phenol], 2-methyl-2-propenoic acid, 2-propenenitrile and 3,3'-sulfonylbis[benzenamine] (9CI) (CA INDEX NAME)

CM 1

CRN 386211-72-9

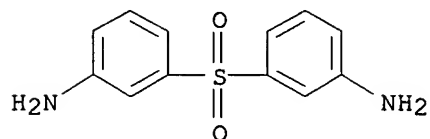
CMF Unspecified

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

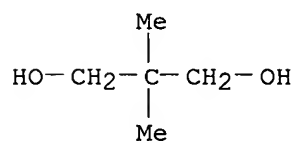
CM 2

CRN 599-61-1  
CMF C12 H12 N2 O2 S



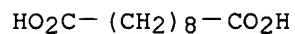
CM 3

CRN 126-30-7  
CMF C5 H12 O2



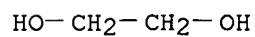
CM 4

CRN 111-20-6  
CMF C10 H18 O4



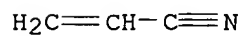
CM 5

CRN 107-21-1  
CMF C2 H6 O2



CM 6

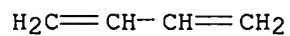
CRN 107-13-1  
CMF C3 H3 N



CM 7

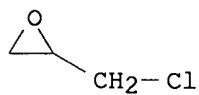


CRN 106-99-0  
CMF C4 H6



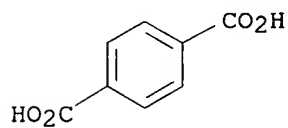
CM 8

CRN 106-89-8  
CMF C3 H5 Cl O



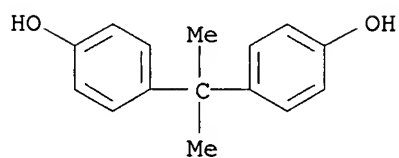
CM 9

CRN 100-21-0  
CMF C8 H6 O4



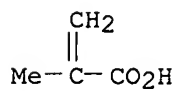
CM 10

CRN 80-05-7  
CMF C15 H16 O2



CM 11

CRN 79-41-4  
CMF C4 H6 O2



L46 ANSWER 7 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:56837 HCAPLUS

DN 136:119458

TI Curable prepregs having excellent **storage** stability and adhesion strength, their manufacture, and curing method

IN Otani, Kazuo; Yamamoto, Tomio; Miura, Kenji; Sendai, Hidetake

PA Showa Highpolymer Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002018991	A2	20020122	JP 2000-202273	20000704
PRAI	JP 2000-202273		20000704		
OS	MARPAT 136:119458				
AB	The prepregs comprise adhesive layers on .gtoreq.1 surface of a curable prepreg layer. Thus, a <b>compn.</b> manufd. from 2-ethylhexyl acrylate 0.3, glycidyl methacrylate 0.3, Bu acrylate 0.4, and acrylic acid 0.21 part was applied on release paper, cured, laminated with a <b>compn.</b> contg. 25% chopped strand glass mat and a mixt. contg. vinyl ester resin (Ripoxy R 802) 100, 1,1,5,5-tetrakis(p-diethylaminophenyl)-2,4-pentadienyl triphenyl-n-butylborate 0.03, tetra-n-butylammonium triphenyl-n-butylborate 0.15, bisacylphosphine oxide (Irgacure 1800) 1.0, and benzotriazole-based UV absorber 0.2 part, and light-irradiated on an iron plate showing adhesion strength 21 kg/cm2.				
IC	ICM B32B005-00				
ICS	B29C070-06; B32B027-36; C08F002-44; C08F002-50; C08F299-02; C08J005-24; C09J004-06; C09J005-00; C09J201-00; B29K067-00; B29K105-06; C08L087-00				
CC	38-3 ( <b>Plastics</b> Fabrication and Uses)				
IT	Epoxy resins, uses RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (acrylates; manuf. of curable prepregs having good <b>storage</b> stability and adhesion strength)				
IT	Reinforced plastics RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (prepregs; manuf. of curable prepregs having good <b>storage</b> stability and adhesion strength)				
IT	Polyesters, uses RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (unsatd.; manuf. of curable prepregs having good <b>storage</b> stability and adhesion strength)				
IT	184649-96-5, Irgacure 1800 RL: CAT (Catalyst use); USES (Uses) (manuf. of curable prepregs having good <b>storage</b> stability and adhesion strength)				
IT	<b>25896-83-7P</b> , Acrylic acid-n-butyl acrylate-2-ethylhexyl acrylate-glycidyl methacrylate copolymer <b>380882-83-7P</b> , n-Butyl acrylate-2-ethylhexyl acrylate-methyl methacrylate-VR 60 copolymer <b>390391-18-1P</b> , Aminoethyl methacrylate-n-butyl acrylate-2-ethylhexyl acrylate-glycidyl methacrylate-methacrylamide-VR 77 copolymer				

**390391-19-2P**, Aminoethyl methacrylate-n-butyl acrylate-2-ethylhexyl acrylate-2-hydroxyethyl acrylate-2-isocyanatoethyl methacrylate-methyl methacrylate-VR 77 copolymer

RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(manuf. of curable prepregs having good **storage** stability and adhesion strength)

IT 62395-94-2, Ripoxy R 802 135991-72-9, Ripoxy R 804 171040-23-6, Ripoxy H 630 226950-41-0, Rigolac FK 2000

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(manuf. of curable prepregs having good **storage** stability and adhesion strength)

IT **120307-06-4 141714-54-7**

RL: CAT (Catalyst use); USES (Uses)

(polymn. initiator; manuf. of curable prepregs having good **storage** stability and adhesion strength)

IT **25896-83-7P**, Acrylic acid-n-butyl acrylate-2-ethylhexyl acrylate-glycidyl methacrylate copolymer **380882-83-7P**, n-Butyl acrylate-2-ethylhexyl acrylate-methyl methacrylate-VR 60 copolymer **390391-18-1P**, Aminoethyl methacrylate-n-butyl acrylate-2-ethylhexyl acrylate-glycidyl methacrylate-methacrylamide-VR 77 copolymer **390391-19-2P**, Aminoethyl methacrylate-n-butyl acrylate-2-ethylhexyl acrylate-2-hydroxyethyl acrylate-2-isocyanatoethyl methacrylate-methyl methacrylate-VR 77 copolymer

RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(manuf. of curable prepregs having good **storage** stability and adhesion strength)

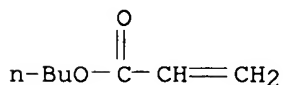
RN 25896-83-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with butyl 2-propenoate, 2-ethylhexyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2

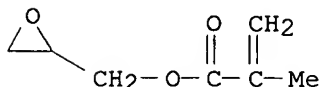
CMF C7 H12 O2



CM 2

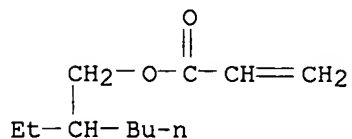
CRN 106-91-2

CMF C7 H10 O3



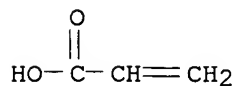
CM 3

CRN 103-11-7  
CMF C11 H20 O2



CM 4

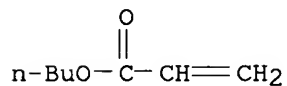
CRN 79-10-7  
CMF C3 H4 O2



RN 380882-83-7 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl  
2-propenoate, (chloromethyl)oxirane polymer with 4,4'-(1-  
methylethylidene)bis[phenol] di-2-propenoate, and 2-ethylhexyl  
2-propenoate (9CI) (CA INDEX NAME)

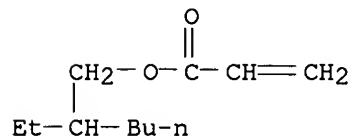
CM 1

CRN 141-32-2  
CMF C7 H12 O2



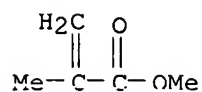
CM 2

CRN 103-11-7  
CMF C11 H20 O2



CM 3

CRN 80-62-6  
CMF C5 H8 O2

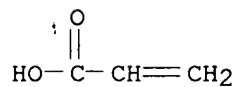


CM 4

CRN 53814-24-7  
CMF (C15 H16 O2 . C3 H5 Cl O)x . 2 C3 H4 O2

CM 5

CRN 79-10-7  
CMF C3 H4 O2

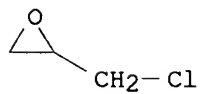


CM 6

CRN 25068-38-6  
CMF (C15 H16 O2 . C3 H5 Cl O)x  
CCI PMS

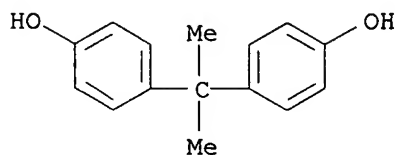
CM 7

CRN 106-89-8  
CMF C3 H5 Cl O



CM 8

CRN 80-05-7  
CMF C15 H16 O2



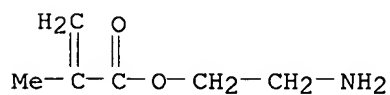
RN 390391-18-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, polymer with butyl 2-propenoate, 2-ethylhexyl 2-propenoate, (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] di-2-propenoate, 2-methyl-2-propenamide and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7659-36-1

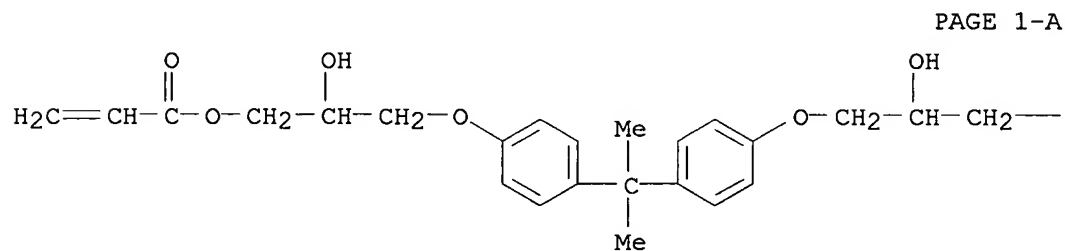
CMF C6 H11 N O2



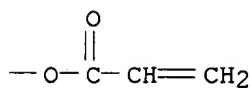
CM 2

CRN 4687-94-9

CMF C27 H32 O8



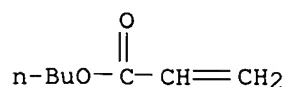
PAGE 1-B



CM 3

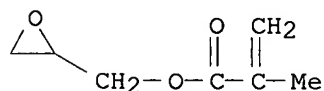
CRN 141-32-2

CMF C7 H12 O2



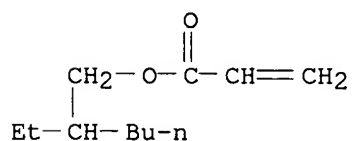
CM 4

CRN 106-91-2  
CMF C7 H10 O3



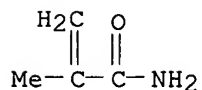
CM 5

CRN 103-11-7  
CMF C11 H20 O2



CM 6

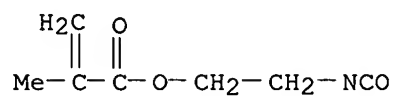
CRN 79-39-0  
CMF C4 H7 N O



RN 390391-19-2 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, polymer with butyl 2-propenoate, 2-ethylhexyl 2-propenoate, 2-hydroxyethyl 2-propenoate, 2-isocyanatoethyl 2-methyl-2-propenoate, (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] di-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

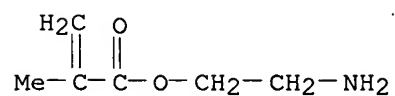
CRN 30674-80-7  
CMF C7 H9 N O3



CM 2

CRN 7659-36-1

CMF C6 H11 N O2

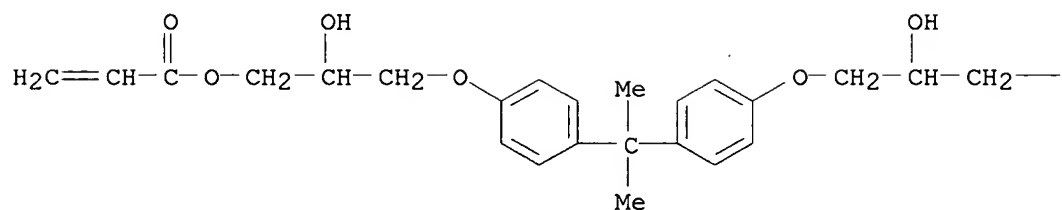


CM 3

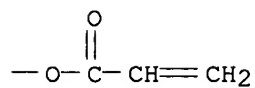
CRN 4687-94-9

CMF C27 H32 O8

PAGE 1-A



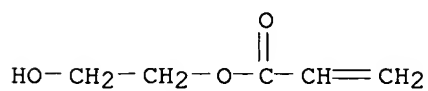
PAGE 1-B



CM 4

CRN 818-61-1

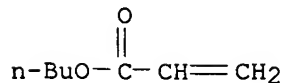
CMF C5 H8 O3



CM 5

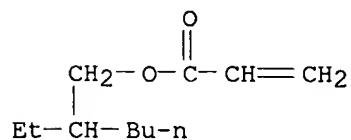


CRN 141-32-2  
CMF C7 H12 O2



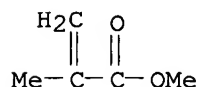
CM 6

CRN 103-11-7  
CMF C11 H20 O2



CM 7

CRN 80-62-6  
CMF C5 H8 O2



IT 120307-06-4 141714-54-7

RL: CAT (Catalyst use); USES (Uses)

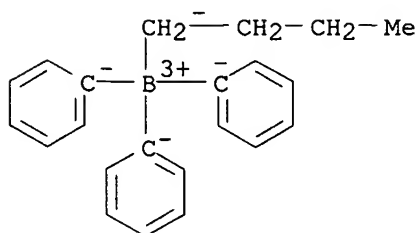
(polymn. initiator; manuf. of curable prepreps having good  
**storage** stability and adhesion strength)

RN 120307-06-4 HCAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA  
INDEX NAME)

CM 1

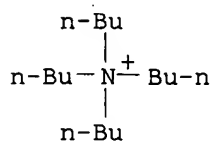
CRN 47252-39-1  
CMF C22 H24 B  
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



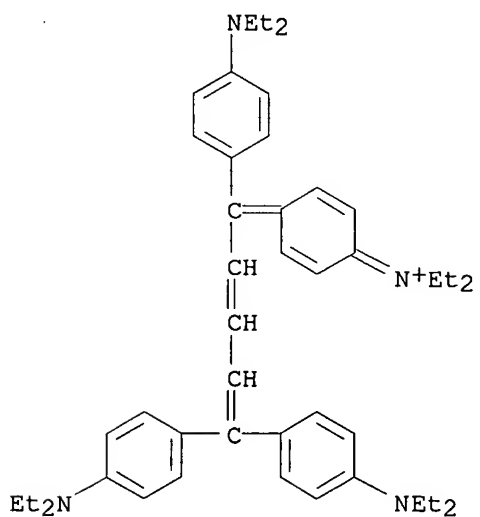
RN 141714-54-7 HCAPLUS

CN Ethanaminium, N-ethyl-N-[4-[1,5,5-tris[4-(diethylamino)phenyl]-2,4-pentadienylidene]-2,5-cyclohexadien-1-ylidene]-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 96233-23-7

CMF C45 H59 N4

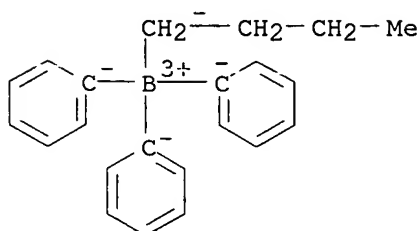


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



L46 ANSWER 8 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:902597 HCAPLUS

DN 136:184188

TI Vinyl polymerization with a binary system of p-chlorobenzenediazonium salt and sodium tetraphenylborate

AU Sato, Tsuneyuki; Takahashi, Toru; Seno, Makiko; Hirano, Tomohiro

CS Department of Chemical Science and Technology, Faculty of Engineering, Tokushima University, Tokushima, 770-8506, Japan

SO Journal of Polymer Science, Part A: Polymer Chemistry (2001), 39(24), 4206-4213

CODEN: JPACEC; ISSN: 0887-624X

PB John Wiley &amp; Sons, Inc.

DT Journal

LA English

AB A combined system of sodium tetraphenylborate (STPB) and p-chlorobenzenediazonium tetrafluoroborate (CDF) serves as an effective initiator at low temps. for acrylate monomers such as Me methacrylate (MMA), Et acrylate, and di-2-ethylhexyl itaconate. The polymn. of MMA with the STPB/CDF system has been kinetically investigated in acetone. The polymn. shows a low overall activation energy of 60.3 kJ/mol. The polymn. rate ( $R_p$ ) at 40.degree.C is given by  $R_p = k[\text{STPB/CDF}]^{0.5}[\text{MMA}]^{1.6}$ , when the molar ratio of STPB to CDF is kept const. at unity, suggesting that STPB and CDF form a complex with a large stability const. and play an important role in initiation and that MMA participates in the initiation process. From the results of a spin trapping study, p-chlorophenyl and Ph radicals are presumed to be generated in the polymn. system. A plausible initiation mechanism is proposed on the basis of kinetic and ESR results. A large solvent effect on the polymn. can be obsd. The largest  $R_p$  value in DMSO is 11 times the smallest value in N,N-dimethylformamide. The copolymn. of MMA and styrene with the STPB/CDF system gives results some-what different from those of conventional radical copolymn.

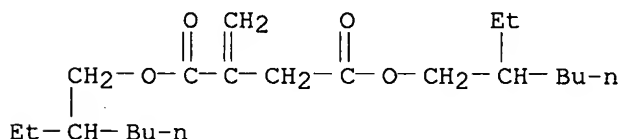
CC 35-4 (Chemistry of Synthetic High Polymers)

IT 9003-20-7P, Vinyl acetate homopolymer 9003-32-1P, Ethyl acrylate homopolymer 9003-53-6P, Styrene homopolymer 9011-14-7P, Methyl methacrylate homopolymer 25014-41-9P, Acrylonitrile homopolymer 25034-86-0P, Methyl methacrylate-styrene copolymer 61467-26-3P

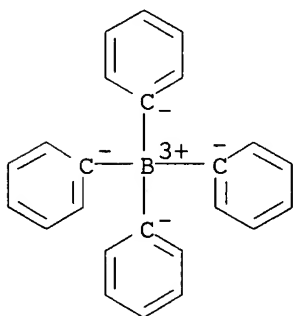
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(vinyl polymn. with binary initiator system)

IT **143-66-8**, Sodium tetraphenylborate **673-41-6**,  
 p-Chlorobenzenediazonium tetrafluoroborate  
 RL: CAT (Catalyst use); USES (Uses)  
 (vinyl polymn. with binary initiator system of)  
 IT **61467-26-3P**  
 RL: PRP (Properties); **SPN (Synthetic preparation)**; **PREP**  
**(Preparation)**  
 (vinyl polymn. with binary initiator system)  
 RN 61467-26-3 HCAPLUS  
 CN Butanedioic acid, methylene-, bis(2-ethylhexyl) ester, homopolymer (9CI)  
 (CA INDEX NAME)  
 CM 1  
 CRN 2287-83-4  
 CMF C21 H38 O4

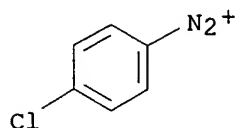


IT **143-66-8**, Sodium tetraphenylborate **673-41-6**,  
 p-Chlorobenzenediazonium tetrafluoroborate  
 RL: CAT (Catalyst use); USES (Uses)  
 (vinyl polymn. with binary initiator system of)  
 RN 143-66-8 HCAPLUS  
 CN Borate(1-), tetraphenyl-, sodium (8CI, 9CI) (CA INDEX NAME)



● Na<sup>+</sup>

RN 673-41-6 HCAPLUS  
 CN Benzenediazonium, 4-chloro-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 17333-85-6  
 CMF C6 H4 Cl N2

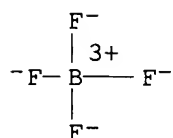


CM 2

CRN 14874-70-5

CMF B F4

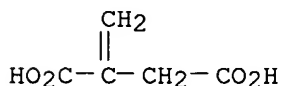
CCI CCS



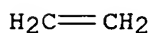
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L46 ANSWER 9 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 2001:893179 HCAPLUS  
DN 136:184465  
TI Grafting of methylenebutanedioic acid to low-density polyethylene in the course of reactive extrusion, initiated with carborane-containing peroxides  
AU Krivoguz, Yu. M.; Yuvchenko, A. P.; Zvereva, T. D.; Pesetskii, S. S.  
CS Belvi Institute of Mechanics of Metal-Polymer Systems, Belarussian National Academy of Sciences, Gomel, Belarus  
SO Russian Journal of Applied Chemistry (Translation of Zhurnal Prikladnoi Khimii) (2001), 74(5), 845-850  
CODEN: RJACEO; ISSN: 1070-4272  
PB MAIK Nauka/Interperiodica Publishing  
DT Journal  
LA English  
AB The influence of carborane-contg. peroxides on the efficiency of grafting of methylenebutanedioic acid to low-d. polyethylene (LDPE) in a single-screw extrusion reactor equipped with a static mixer was studied. The performance of peroxides contg. carborane fragments depended on the chem. structure of the peroxides. Initiation of grafting with a mixt. of bis(3-methyl-3-tert-pentylperoxy-1-butynyl)-1-o-carboranylmethanol and bis(3-methyl-3-tert-pentylperoxy-1-butynyl)-1-(2-isopropyl)-o-carboranylmethanol ensured formation of the functionalized polymer with a grafting efficiency comparable to that attained using dicumyl peroxide (I) as the initiator, with an appreciably reduced degree of crosslinking of the macromols. Use of 1,7-bis(tert-butylperoxymethylvinylsilyl)-m-carborane as the initiator gave a product with a melt flow index 10-20% higher than that of the initial LDPE. Functionalized LDPE prepd. in the presence of the carborane-contg. peroxides exhibited enhanced resistance to thermal oxidative degrdn. as compared to the product obtained in the presence of I.

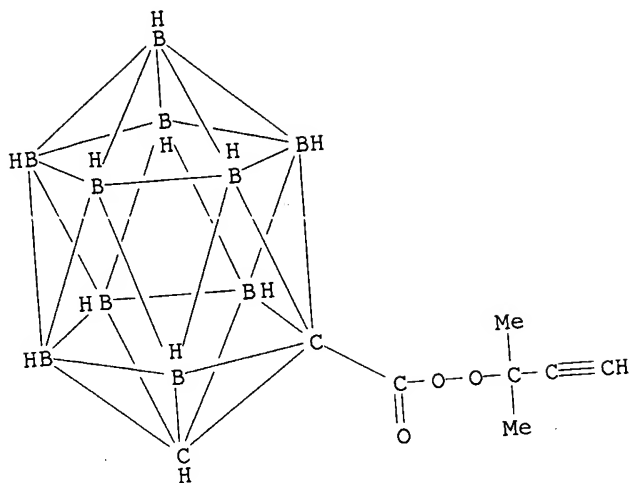
CC 37-3 (**Plastics** Manufacture and Processing)  
 IT **110822-28-1P**, Ethylene-methylenebutanedioic acid graft copolymer  
 RL: PRP (Properties); **SPN (Synthetic preparation); PREP**  
**(Preparation)**  
 (grafting of methylenebutanedioic acid to low-d. polyethylene in course  
 of reactive extrusion initiated with carborane-contg. peroxides)  
 IT 80-43-3, Dicumyl peroxide **146959-04-8 146959-05-9**  
**158309-50-3 158309-51-4 158309-52-5**  
**158309-53-6 158701-39-4**  
 RL: CAT (Catalyst use); USES (Uses)  
 (polymn. catalyst; grafting of methylenebutanedioic acid to low-d.  
 polyethylene in course of reactive extrusion initiated with  
 carborane-contg. peroxides)  
 IT **110822-28-1P**, Ethylene-methylenebutanedioic acid graft copolymer  
 RL: PRP (Properties); **SPN (Synthetic preparation); PREP**  
**(Preparation)**  
 (grafting of methylenebutanedioic acid to low-d. polyethylene in course  
 of reactive extrusion initiated with carborane-contg. peroxides)  
 RN 110822-28-1 HCAPLUS  
 CN Butanedioic acid, methylene-, polymer with ethene, graft (9CI) (CA INDEX  
 NAME)  
 CM 1  
 CRN 97-65-4  
 CMF C5 H6 O4



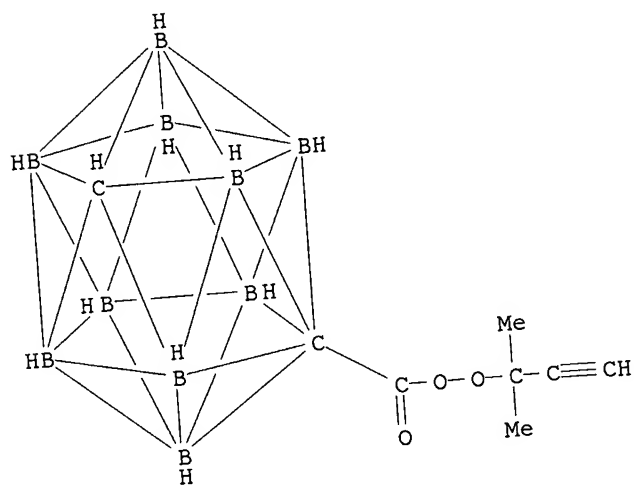
CM 2  
 CRN 74-85-1  
 CMF C2 H4



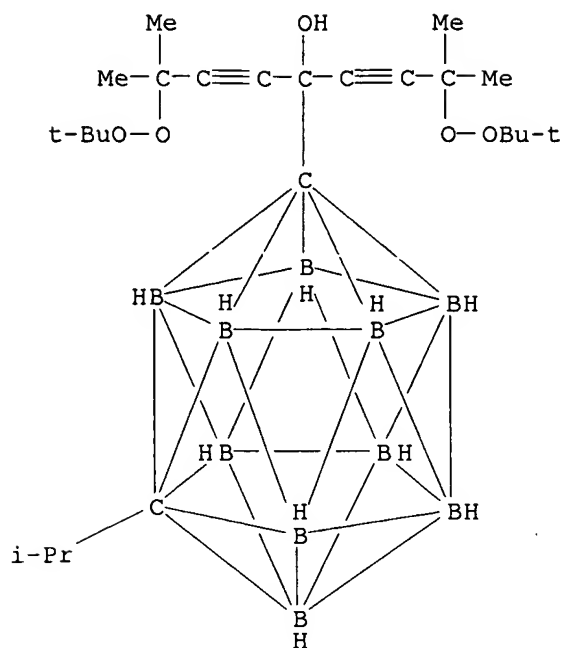
IT **146959-04-8 146959-05-9 158309-50-3**  
**158309-51-4 158309-52-5 158309-53-6**  
**158701-39-4**  
 RL: CAT (Catalyst use); USES (Uses)  
 (polymn. catalyst; grafting of methylenebutanedioic acid to low-d.  
 polyethylene in course of reactive extrusion initiated with  
 carborane-contg. peroxides)  
 RN 146959-04-8 HCAPLUS  
 CN 1,2-Dicarbododecaborane(12)-1-carboperoxoic acid, 1,1-dimethyl-2-propynyl  
 ester (9CI) (CA INDEX NAME)



RN 146959-05-9 HCAPLUS  
 CN 1,7-Dicarbadoodecaborane(12)-1-carboperoxoic acid, 1,1-dimethyl-2-propynyl ester (9CI) (CA INDEX NAME)

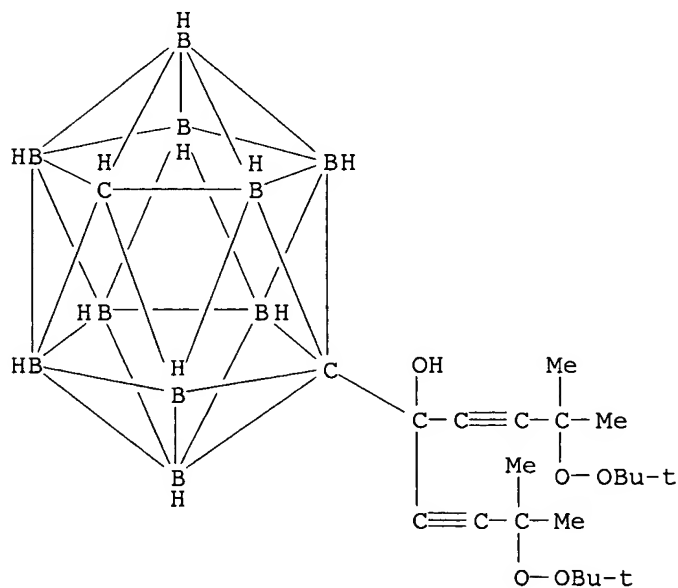


RN 158309-50-3 HCAPLUS  
 CN 1,7-Dicarbadoodecaborane(12)-1-methanol, .alpha.,.alpha.-bis[3-[(1,1-dimethylethyl)dioxy]-3-methyl-1-butynyl]-7-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 158309-51-4 HCAPLUS

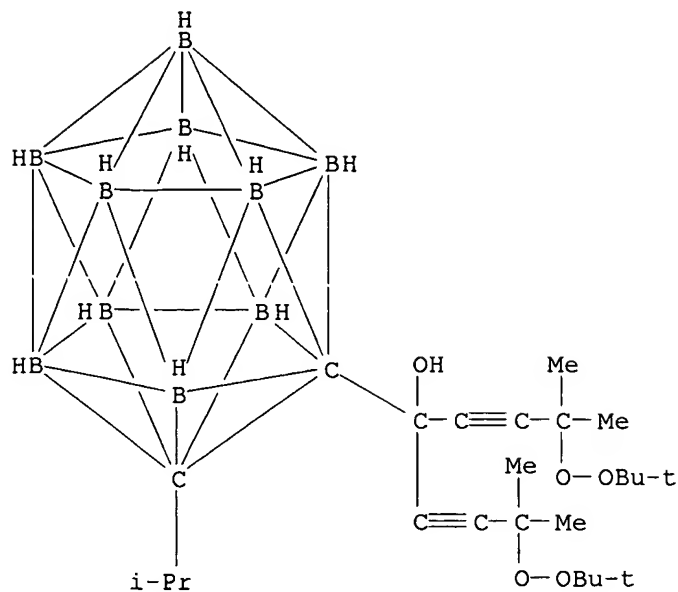
CN 1,7-Dicarbadoecaborane(12)-1-methanol, .alpha.,.alpha.-bis[3-[(1,1-dimethylethyl)dioxy]-3-methyl-1-butynyl]- (9CI) (CA INDEX NAME)



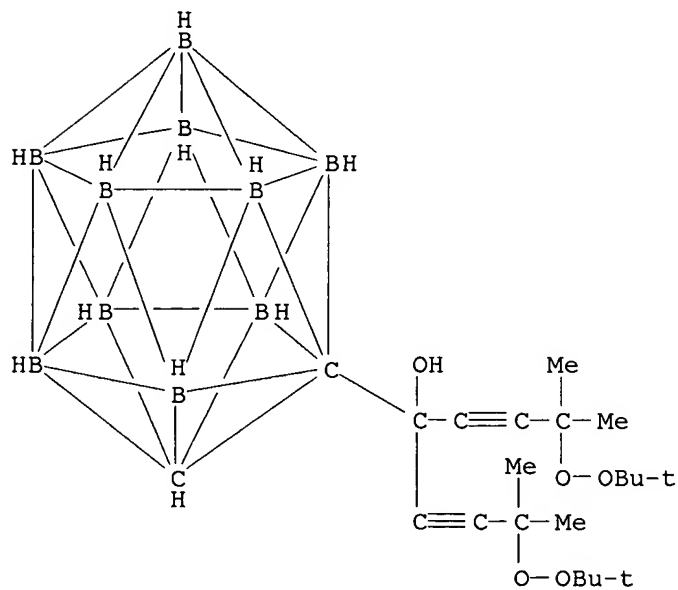
RN 158309-52-5 HCAPLUS

CN 1,2-Dicarbadoecaborane(12)-1-methanol, .alpha.,.alpha.-bis[3-[(1,1-dimethylethyl)dioxy]-3-methyl-1-butynyl]-2-(1-methylethyl)- (9CI) (CA INDEX NAME)

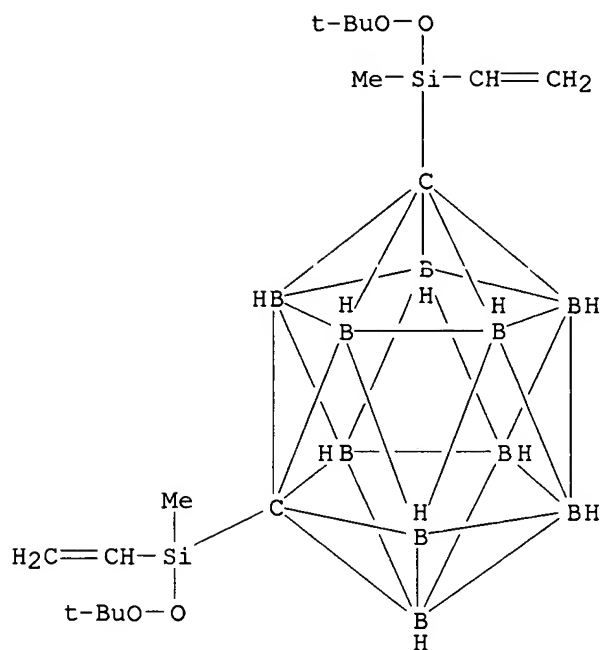




RN 158309-53-6 HCAPLUS  
 CN 1,2-Dicarbadoecaborane(12)-1-methanol, .alpha.,.alpha.-bis[3-[(1,1-dimethylethyl)dioxy]-3-methyl-1-butyne]- (9CI) (CA INDEX NAME)



RN 158701-39-4 HCAPLUS  
 CN 1,7-Dicarbadoecaborane(12), 1,7-bis[[ (1,1-dimethylethyl)dioxy]ethenylmethylsilyl]- (9CI) (CA INDEX NAME)



RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 10 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:829685 HCAPLUS

DN 136:135067

TI Energetics of electron-transfer reactions of photoinitiated  
polymerization: dye-sensitized fragmentation of N-alkoxyppyridinium salts

AU Gould, Ian R.; Shukla, Deepak; Giesen, David; Farid, Samir

CS Department of Chemistry and Biochemistry, Arizona State University, Tempe,  
AZ, 85287, USA

SO Helvetica Chimica Acta (2001), 84(9), 2796-2812

CODEN: HCACAV; ISSN: 0018-019X

PB Verlag Helvetica Chimica Acta

DT Journal

LA English

AB Electron transfer from excited dyes to N-alkoxyppyridinium salts leads to reductive cleavage of the N-O bond to give an alkoxy radical that can be used to initiate polymn. The bond-dissocn. energy (BDE) obtained from calcs. based on d.-functional theory were in agreement with predictions from a thermochem. cycle. These data show a difference of ca. 290-315 kJ/mol between the BDE of the pyridinium and that of the pyridyl radical and indicate that the fragmentation of the radical is highly exothermic. The energetic requirements for the photochem. electron transfer are discussed in terms of a simplified model that shows that the initiation efficiency of the radical polymn. can be correlated with a single parameter, the redn. potential of the sensitizing dye. Dyes, including cyanine, styrylpyridinium, rhodamine, squarylium, coumarin, oxanol, with absorption bands spanning the entire visible region were effective in initiating photopolymn. of acrylate monomers in this **system**. The photoresponse can be doubled through coupling of the reductive cleavage of the N-alkoxyppyridinium with oxidative cleavage of the C-B bond of an alkyltriarylborate, a process that utilizes the chem. potential

stored in the oxidized dye following electron transfer to the pyridinium salt.

CC 35-3 (Chemistry of Synthetic High Polymers)

IT Alcohols, preparation

RL: CAT (Catalyst use); PNU (Preparation, unclassified); **PREP (Preparation)**; USES (Uses)

(aliph., radicals; energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator **system** in photopolymer. of acrylic monomers)

IT Pyridinium compounds

RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(alkoxy; energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator **system** in photopolymer. of acrylic monomers)

IT Bond cleavage

Bond energy

Cyanine dyes

Dyes

Photoexcitation

Reduction potential

(energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator **system** in photopolymer. of acrylic monomers)

IT Electron transfer

(photochem.; energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator **system** in photopolymer. of acrylic monomers)

IT Polymerization catalysts

(radical; energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator **system** in photopolymer. of acrylic monomers)

IT 65-61-2, Acridine Orange 92-32-0, Pyronine Y 117-92-0 514-73-8  
989-38-8, Rhodamine 6G 2390-63-8, Rhodamine 3B 3071-70-3 12243-46-8  
14806-50-9 19764-96-6 25470-94-4 36536-22-8 38215-36-0  
41044-12-6 47367-75-9, Oxazine 1 53213-82-4 53336-12-2 54290-14-1  
60311-02-6 61105-56-4 **63123-42-2**, N-Methoxy-4-phenylpyridinium  
tetrafluoroborate 68842-65-9 72907-71-2 80566-27-4 83846-70-2  
98766-45-1 105802-46-8 116450-33-0 116450-35-2 116450-36-3  
116450-37-4 116450-42-1 116450-44-3 116450-56-7 121956-74-9  
154078-27-0 217963-75-2 389104-49-8 393178-09-1

RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator **system** in photopolymer. of acrylic monomers)

IT **389104-50-1P**

RL: PNU (Preparation, unclassified); **PREP (Preparation)**

(energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator **system** in photopolymer. of acrylic monomers)

IT 18525-99-0

RL: CAT (Catalyst use); USES (Uses)

(inhibitor; energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator **system** in photopolymer. of acrylic monomers)

IT 122644-44-4

RL: NUU (Other use, unclassified); USES (Uses)

(polymn. medium binder; energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator **system** in photopolymn. of acrylic monomers)

IT **63123-42-2**, N-Methoxy-4-phenylpyridinium tetrafluoroborate  
 RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
 (energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator **system** in photopolymn. of acrylic monomers)

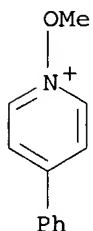
RN 63123-42-2 HCAPLUS

CN Pyridinium, 1-methoxy-4-phenyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 46313-31-9

CMF C12 H12 N O

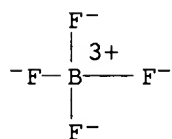


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IT **389104-50-1P**

RL: PNU (Preparation, unclassified); **PREP (Preparation)**  
 (energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator **system** in photopolymn. of acrylic monomers)

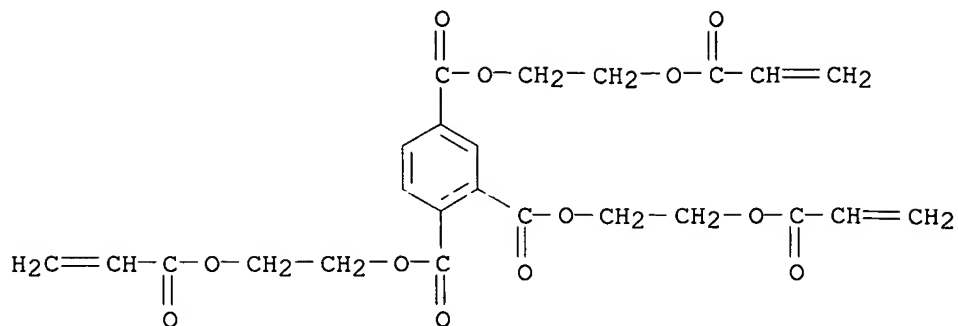
RN 389104-50-1 HCAPLUS

CN 1,2,4-Benzenetricarboxylic acid, tris[2-[(1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 2-(benzoyloxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 39144-57-5

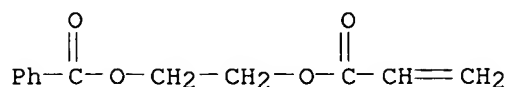
CMF C24 H24 O12



CM 2

CRN 15622-80-7

CMF C12 H12 O4



RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 11 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:693446 HCAPLUS

DN 135:258154

TI Organoborane polymerization initiator systems and bonding compositions  
comprising vinyl aromatic compounds

IN Moren, Dean M.

PA 3M Innovative Properties Company, USA

SO PCT Int. Appl., 68 pp.

CODEN: PIXXD2

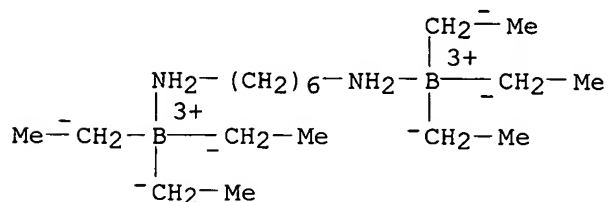
DT Patent

LA English

FAN.CNT 1

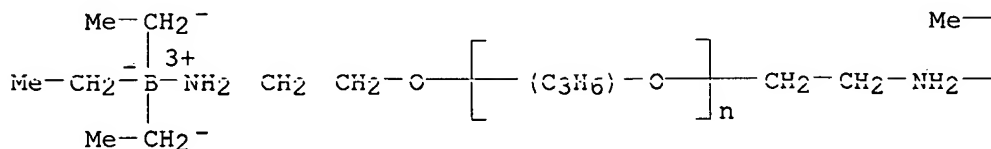
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PI	WO 2001068783	A2	20010920	WO 2001-US4752	20010214
	WO 2001068783	A3	20020221		
	W: BR, CN, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	US 6479602	B1	20021112	US 2000-525368	20000315
	EP 1263907	A2	20021211	EP 2001-910679	20010214
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	BR 2001009243	A	20021224	BR 2001-9243	20010214
	JP 2003526729	T2	20030909	JP 2001-567270	20010214
PRAI	US 2000-525368	A	20000315		
	WO 2001-US4752	W	20010214		

- AB Polymn. initiator systems comprise an organoborane and a vinyl arom. compd. carrier and reactant. The polymn. initiator systems are particularly useful in formulating 2-part curable bonding compns., particularly those that cure to acrylic adhesives, more particularly those that cure to acrylic adhesives capable of bonding to low surface energy substrates. Also, bonding compns. comprising an organoborane, .gtoreq.1 polymerizable monomer, and .gtoreq.1 vinyl arom. compd. A bonding compn. contg. reactive monomers CN 972 5, tetrahydrofurfuryl methacrylate 195, 2-ethylhexyl methacrylate 65, 4-tert-butylstyrene 25, NKEster SA 21.25, ~~decomplexer~~ anhydride 3.75 g, organoborane-amine catalyst, and impact modifier, was cured 2 h and showed T peel strength (to HDPE) 47.1 N/cm.
- IC ICM C09J004-00
- CC 38-3 (**Plastics** Fabrication and Uses)  
Section cross-reference(s): 35
- IT **223674-50-8 361534-23-8**  
RL: CAT (Catalyst use); USES (Uses)  
(organoborane polymn. initiator systems and adhesives comprising reactive vinyl arom. carriers for bonding to low-surface-energy plastics)
- IT 103-11-7DP, 2-Ethylhexyl acrylate, reaction products with TMI adducts 2094-99-7DP, TMI, reaction products with polyalkylene polyamine and unsatd. monomers 2455-24-5DP, Tetrahydrofurfuryl methacrylate, reaction products with TMI adducts 20882-04-6DP, NKEster SA, reaction products with TMI adducts 60506-81-2DP, SR 399, reaction products with TMI adducts 65605-36-9DP, Jeffamine ED 600, reaction products with isopropenyl dimethylbenzylisocyanate and unsatd. monomers 83713-01-3DP, Jeffamine M 2005, reaction products with isopropenyl dimethylbenzylisocyanate and unsatd. monomers **361202-06-4P 361202-07-5P 361202-08-6P 361202-09-7P 361202-10-0P 361202-11-1P 361534-25-0P 361534-27-2P 361534-28-3P**  
RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(organoborane polymn. initiator systems and adhesives comprising reactive vinyl arom. carriers for bonding to low-surface-energy plastics)
- IT **223674-50-8 361534-23-8**  
RL: CAT (Catalyst use); USES (Uses)  
(organoborane polymn. initiator systems and adhesives comprising reactive vinyl arom. carriers for bonding to low-surface-energy plastics)
- RN 223674-50-8 HCAPLUS
- CN Boron, hexaethyl[.mu.-(1,6-hexanediamine-.kappa.N:.kappa.N')]di- (9CI)  
(CA INDEX NAME)



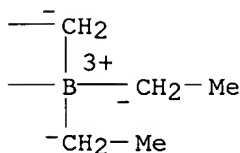
RN 361534-23-8 HCAPLUS  
 CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-, ether  
 with (T-4)-[1(or 2)-(amino-.vkappa.N)propanol]triethylboron (2:1) (9CI)  
 (CA INDEX NAME)

PAGE 1-A



2 ( D1-Me )

PAGE 1-B



IT 361202-06-4P 361202-07-5P 361202-08-6P  
 361202-09-7P 361202-10-0P 361202-11-1P  
 361534-25-0P 361534-27-2P 361534-28-3P

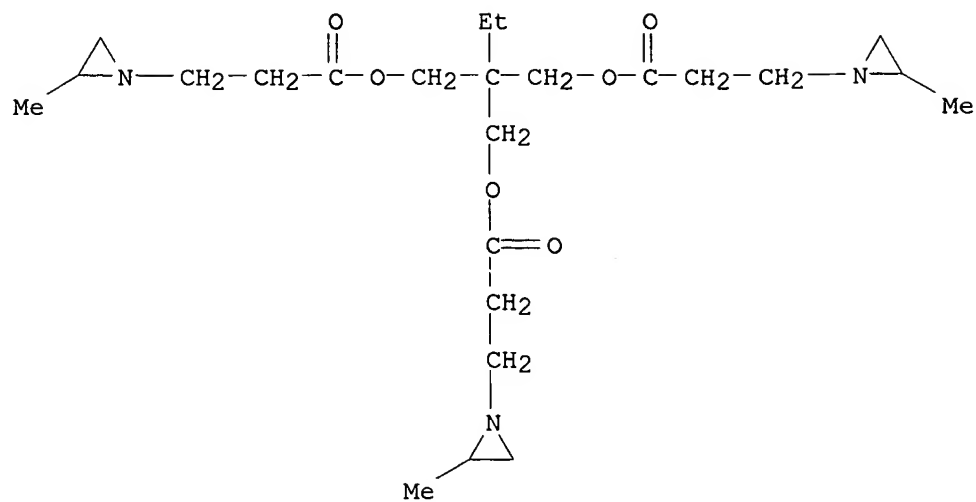
RL: IMF (Industrial manufacture); PRP (Properties); TEM  
 (Technical or engineered material use); PREP (Preparation); USES  
 (Uses)

(organoborane polymn. initiator systems and adhesives comprising  
 reactive vinyl arom. carriers for bonding to low-surface-energy  
 plastics)

RN 361202-06-4 HCAPLUS  
 CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester,  
 polymer with 1,3-bis(1-methylethenyl)benzene, 2-ethylhexyl  
 2-methyl-2-propenoate, 2-ethyl-2-[[3-(2-methyl-1-aziridinyl)-1-  
 oxopropoxy]methyl]-1,3-propanediyl bis(2-methyl-1-aziridinepropanoate) and  
 (tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

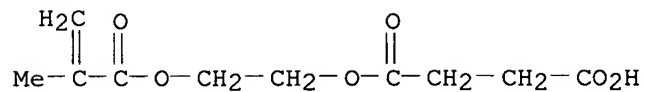
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CM 2

CRN 20882-04-6

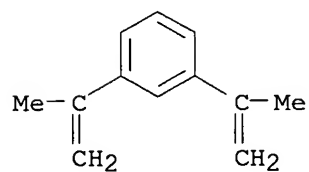
CMF C10 H14 O6



CM 3

CRN 3748-13-8

CMF C12 H14

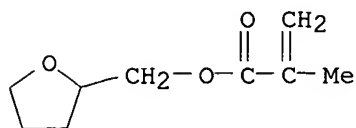


CM 4

CRN 2455-24-5

CMF C9 H14 O3

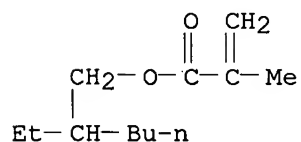




CM 5

CRN 688-84-6

CMF C12 H22 O2



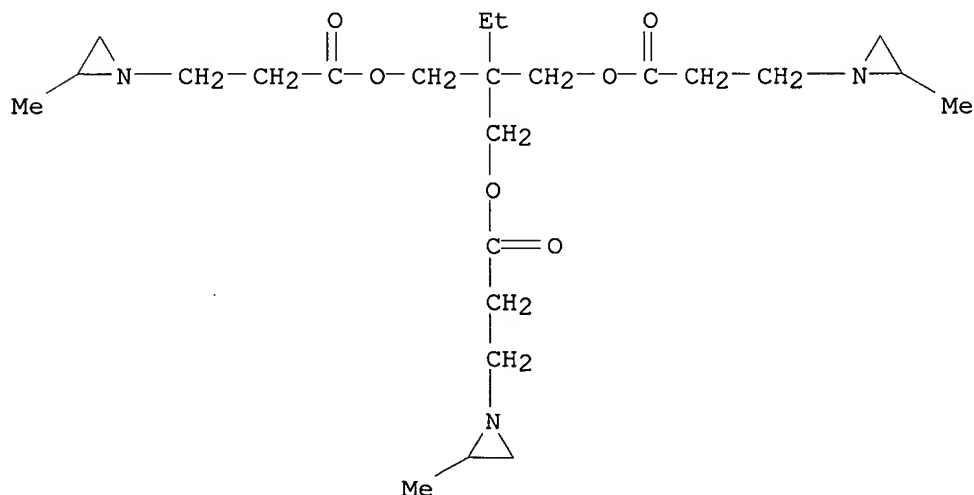
RN 361202-07-5 HCAPLUS

CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 2-ethylhexyl 2-methyl-2-propenoate, 2-ethyl-2-[[3-(2-methyl-1-aziridinyl)-1-oxopropoxy]methyl]-1,3-propanediyl bis(2-methyl-1-aziridinepropanoate), (1-methylethenyl)benzene and (tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

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CRN 64265-57-2

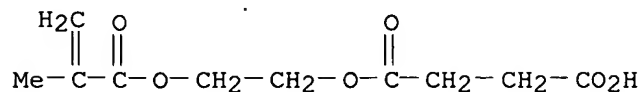
CMF C24 H41 N3 O6



CM 2

CRN 20882-04-6

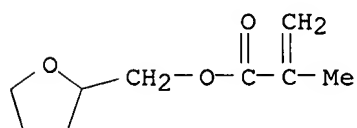
CMF C10 H14 O6



CM 3

CRN 2455-24-5

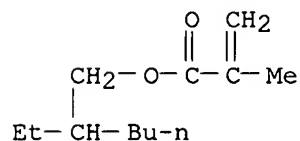
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CM 4

CRN 688-84-6

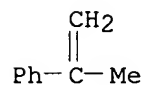
CMF C12 H22 O2



CM 5

CRN 98-83-9

CMF C9 H10

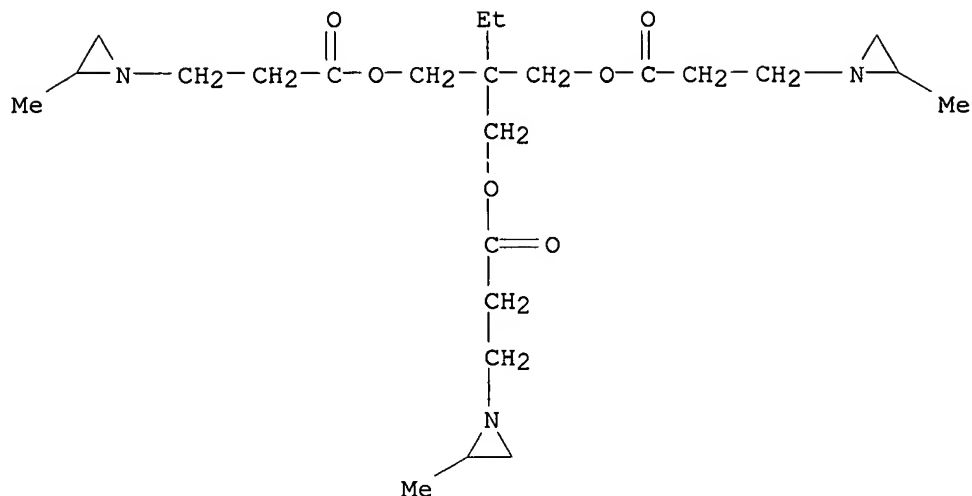


RN 361202-08-6 HCAPLUS

CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 1,3-bis(1-methylethenyl)benzene, 2-ethylhexyl 2-methyl-2-propenoate, 2-ethyl-2-[[3-(2-methyl-1-aziridinyl)-1-oxopropoxy]methyl]-1,3-propanediyl bis(2-methyl-1-aziridinepropanoate), .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and (tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

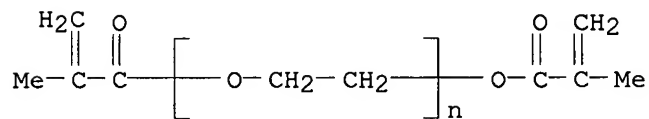
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CRN 64265-57-2  
CMF C24 H41 N3 O6



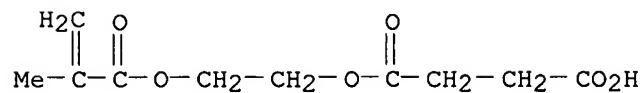
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CRN 25852-47-5  
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CCI PMS



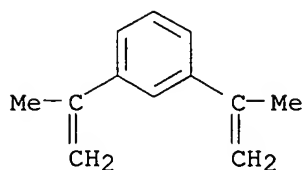
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CRN 20882-04-6  
CMF C10 H14 O6



CM 4

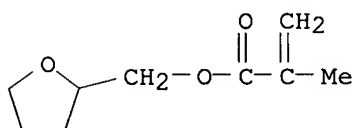
CRN 3748-13-8  
CMF C12 H14



CM 5

CRN 2455-24-5

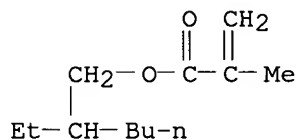
CMF C9 H14 O3



CM 6

CRN 688-84-6

CMF C12 H22 O2



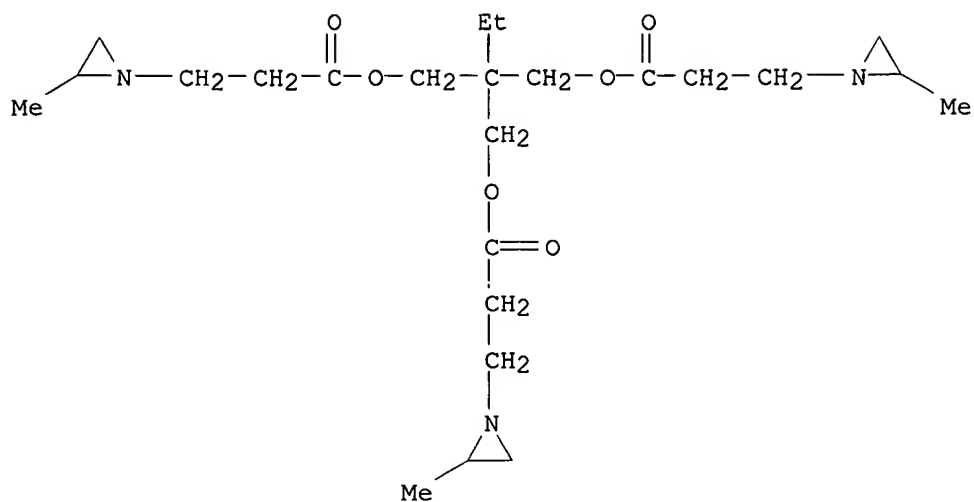
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CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 1-(1,1-dimethylethyl)-4-ethenylbenzene, 2-ethylhexyl 2-methyl-2-propenoate, 2-ethyl-2-[[3-(2-methyl-1-aziridinyl)-1-oxopropoxy]methyl]-1,3-propanediyl bis(2-methyl-1-aziridinepropanoate), .alpha.-(1-oxo-2-propenyl)-.omega.-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and (tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 64265-57-2

CMF C24 H41 N3 O6

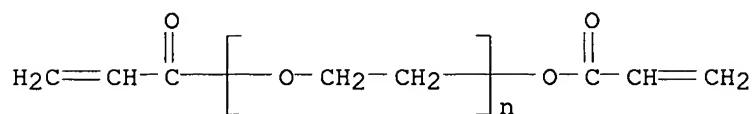


CM 2

CRN 26570-48-9

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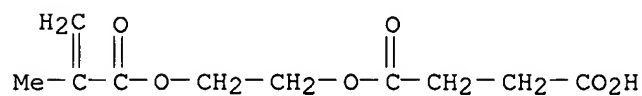
CCI PMS



CM 3

CRN 20882-04-6

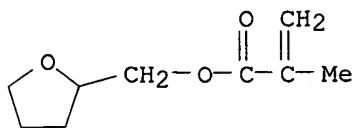
CMF C10 H14 O6



CM 4

CRN 2455-24-5

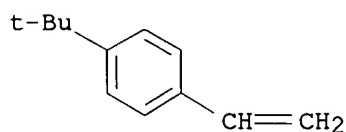
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CM 5

CRN 1746-23-2

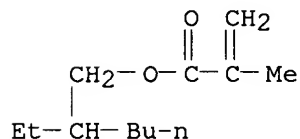
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CM 6

CRN 688-84-6

CMF C12 H22 O2



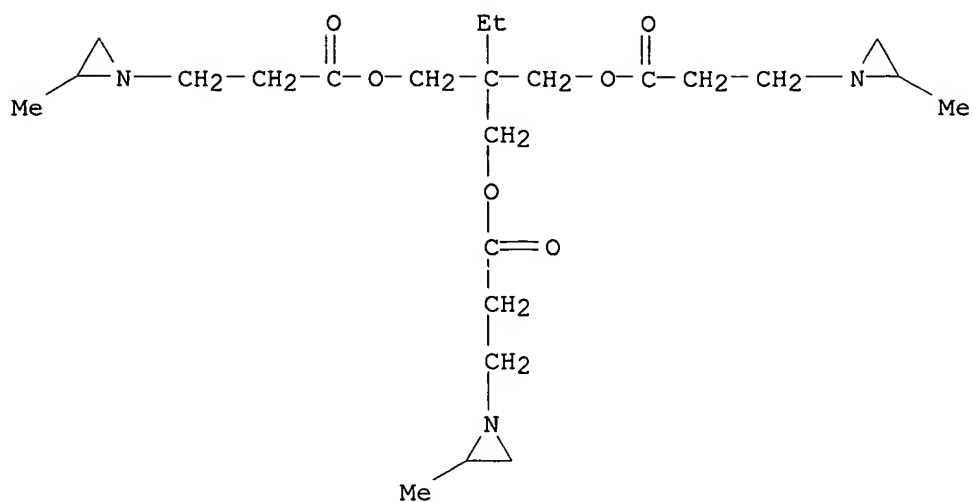
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CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 1-(1,1-dimethylethyl)-4-ethenylbenzene, 2-ethylhexyl 2-methyl-2-propenoate, 2-ethyl-2-[[3-(2-methyl-1-aziridinyl)-1-oxopropoxy]methyl]-1,3-propanediyl bis(2-methyl-1-aziridinepropanoate), .alpha.-hydro-.omega.-[(1-oxo-2-propenyl)oxy][poly(oxy-1,2-ethanediyl)] ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and (tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 64265-57-2

CMF C24 H41 N3 O6



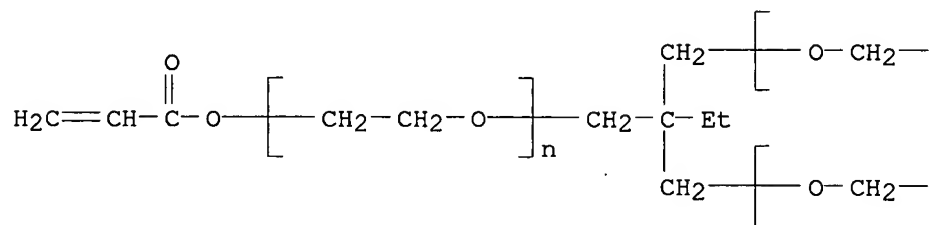
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CRN 28961-43-5

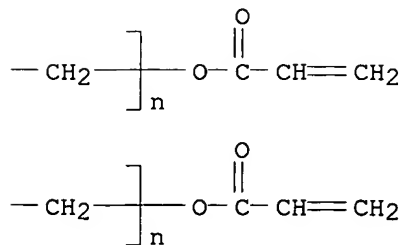
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CCI PMS

PAGE 1-A



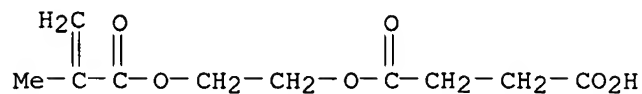
PAGE 1-B



CM 3

CRN 20882-04-6

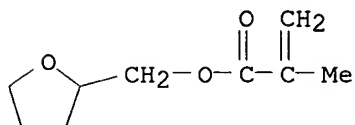
CMF C10 H14 O6



CM 4

CRN 2455-24-5

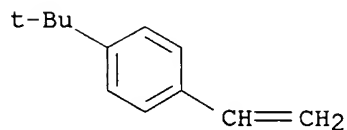
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CM 5

CRN 1746-23-2

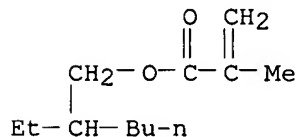
CMF C12 H16



CM 6

CRN 688-84-6

CMF C12 H22 O2



RN 361202-11-1 HCAPLUS

CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with CN 972, 1-(1,1-dimethylethyl)-4-ethenylbenzene, 2-ethylhexyl 2-methyl-2-propenoate, 2-ethyl-2-[[3-(2-methyl-1-aziridinyl)-1-oxopropoxy]methyl]-1,3-propanediyl bis(2-methyl-1-aziridinepropanoate) and (tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

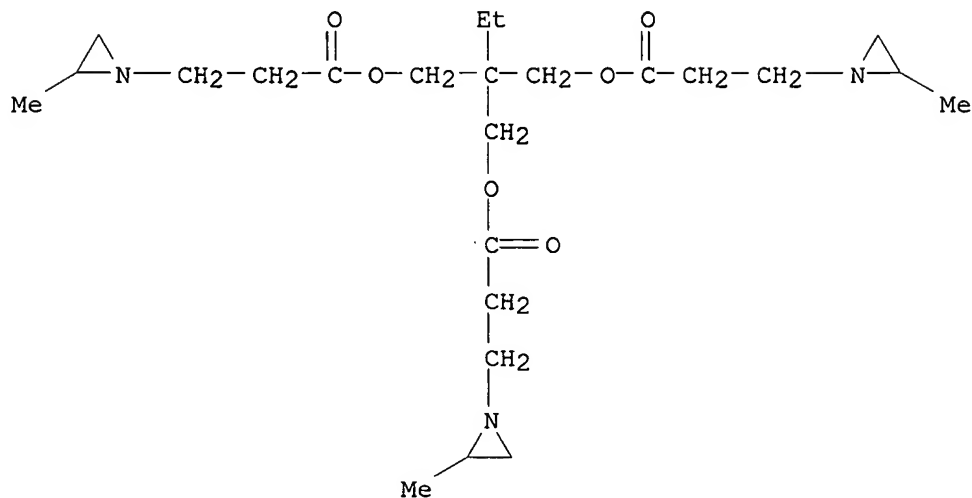


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CMF Unspecified  
CCI PMS, MAN

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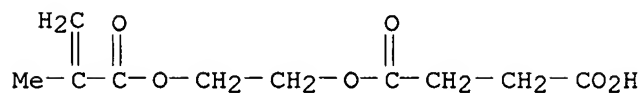
CM 2

CRN 64265-57-2  
CMF C24 H41 N3 O6



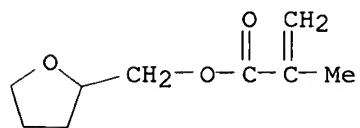
CM 3

CRN 20882-04-6  
CMF C10 H14 O6



CM 4

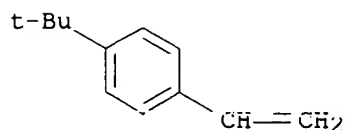
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CM 5

CRN 1746-23-2

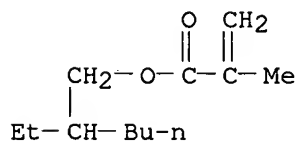
CMF C12 H16



CM 6

CRN 688-84-6

CMF C12 H22 O2



RN 361534-25-0 HCAPLUS

CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 2-ethylhexyl 2-methyl-2-propenoate, .alpha.-[methyl-2-[[[[[3-(1-methylethenyl)phenyl]methyl]amino]carbonyl]amino]ethyl]-.omega.-[methyl-2-[[[[[3-(1-methylethenyl)phenyl]methyl]amino]carbonyl]amino]ethoxy]poly[oxy(methyl-1,2-ethanediyl)] and (tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

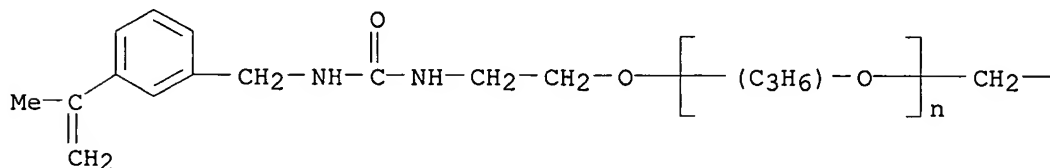
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CRN 361534-24-9

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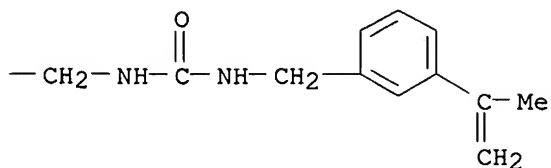
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PAGE 1-A



2 ( D1-Me )

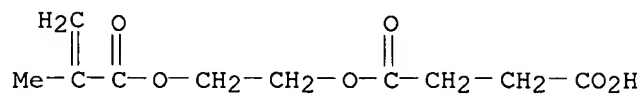
PAGE 1-B



CM 2

CRN 20882-04-6

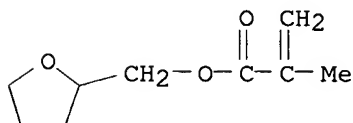
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CM 3

CRN 2455-24-5

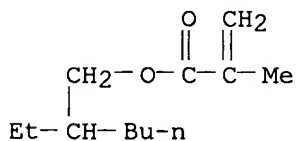
CMF C9 H14 O3



CM 4

CRN 688-84-6

CMF C12 H22 O2



RN 361534-27-2 HCAPLUS

CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 2-ethylhexyl 2-methyl-2-propenoate, .alpha.,.alpha.',.alpha.'-1,2,3-propanetriyltris[.omega.-[methyl-2-[[[[[3-(1-methylethenyl)phenyl]methyl]amino]carbonyl]amino]ethoxy]poly[oxy(methyl-1,2-ethanediyl)]] and (tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

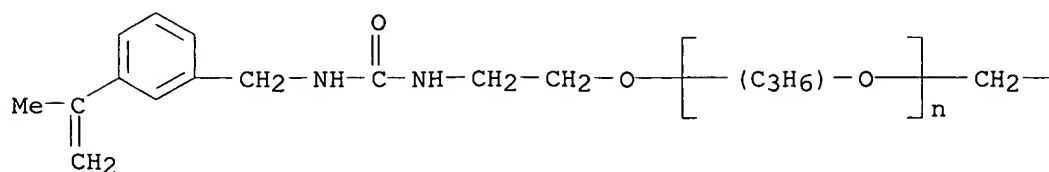
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CRN 361534-26-1

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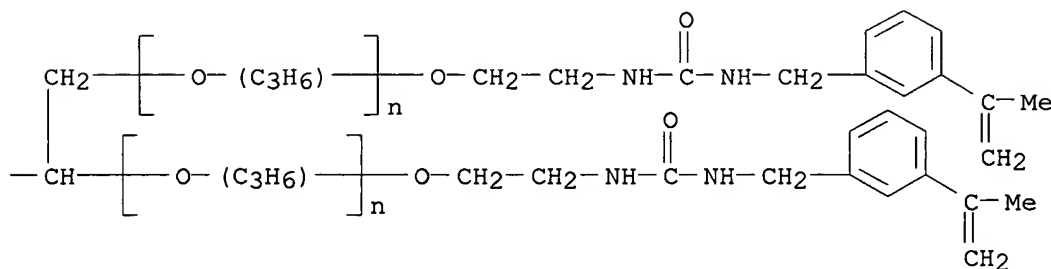
CCI IDS, PMS

PAGE 1-A



3 ( D1-Me )

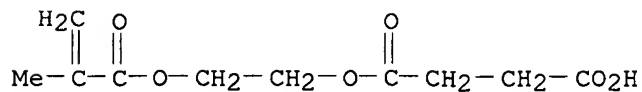
PAGE 1-B



CM 2

CRN 20882-04-6

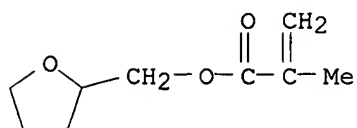
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CM 3

CRN 2455-24-5

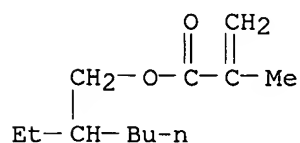
CMF C9 H14 O3



CM 4

CRN 688-84-6

CMF C12 H22 O2



Et-CH-Bu-n

RN 361534-28-3 HCAPLUS

CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 2-ethylhexyl 2-methyl-2-propenoate, .alpha.-[methyl-2-[[[[[3-(1-methylethenyl)phenyl]methyl]amino]carbonyl]amino]ethyl]-.omega.-[methyl-2-[[[[[3-(1-methylethenyl)phenyl]methyl]amino]carbonyl]amino]ethoxy]poly[oxy(methyl-1,2-ethanediyl)], methyl [[3-(1-methylethenyl)phenyl]methyl]carbamate and (tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

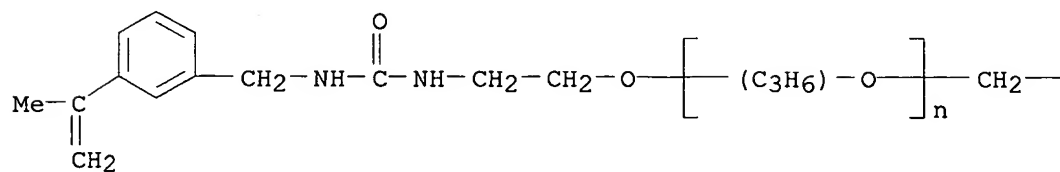
CM 1

CRN 361534-24-9

CMF (C3 H6 O)<sub>n</sub> C28 H38 N4 O3

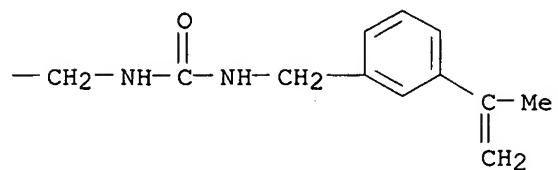
CCI IDS, PMS

PAGE 1-A



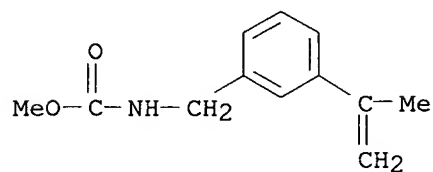
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PAGE 1-B



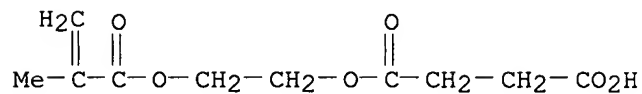
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CRN 154666-31-6  
CMF C12 H15 N O2



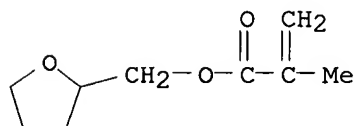
CM 3

CRN 20882-04-6  
CMF C10 H14 O6



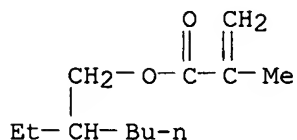
CM 4

CRN 2455-24-5  
CMF C9 H14 O3



CM 5

CRN 688-84-6  
CMF C12 H22 O2



L46 ANSWER 12 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:338584 HCAPLUS

DN 134:353674

TI Initiator/amidine complexes, systems comprising the complexes, and polymerized compositions made therewith

IN Moren, Dean M.

PA 3m Innovative Properties Company, USA

SO PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001032717	A2	20010510	WO 2000-US5090	20000225
	WO 2001032717	A3	20020926		
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 6410667	B1	20020625	US 1999-433236	19991104
	EP 1261647	A2	20021204	EP 2000-915911	20000225
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
	JP 2003514923	T2	20030422	JP 2001-535415	20000225
	US 2002182425	A1	20021205	US 2002-138757	20020503
	US 2003176607	A1	20030918	US 2003-365849	20030214
PRAI	US 1999-433236	A	19991104		
	WO 2000-US5090	W	20000225		
	US 2002-138757	A3	20020503		
OS	MARPAT 134:353674				
AB	Initiator systems of the invention comprise a complexed initiator comprising a complex of an amidine complexing agent and an initiator; and a <b>decomplexer</b> . The initiator systems are useful for initiating polymn. of at least one monomer to form polynd. compns. Kits of the invention useful for forming the polynd. compns. comprise a polymerizable compn. and an initiator component, wherein the initiator component comprises a complexed amidine initiator. Bonding compns. can be prepd. by mixing the polymerizable compn. of the kit with the resp. initiator component. A complex was prepd. from N,N,N',N'-tetramethylguanidine and triethylborane.				
IC	ICM C08F004-00				
CC	35-3 (Chemistry of Synthetic High Polymers)				
IT	338953-25-6P 338953-26-7P 338953-27-8P				

RL: CAT (Catalyst use); **IMF (Industrial manufacture); PREP (Preparation); USES (Uses)**

(initiator/amidine complexes, systems comprising the complexes, and polymd. compns. made therewith)

IT **25035-88-5P**, Butyl acrylate-ethyl acrylate-methacrylic acid-methyl methacrylate copolymer **83614-28-2P**, 2-Ethylhexylmethacrylate-tetrahydrofurfuryl methacrylate copolymer

RL: **IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**

(initiator/amidine complexes, systems comprising the complexes, and polymd. compns. made therewith)

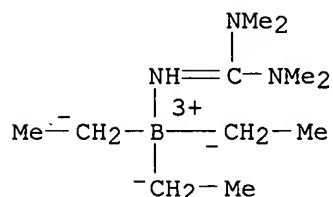
IT **338953-25-6P 338953-26-7P 338953-27-8P**

RL: CAT (Catalyst use); **IMF (Industrial manufacture); PREP (Preparation); USES (Uses)**

(initiator/amidine complexes, systems comprising the complexes, and polymd. compns. made therewith)

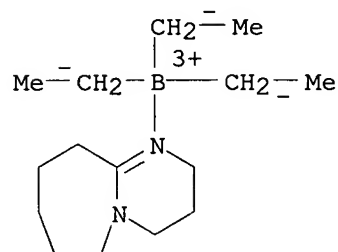
RN 338953-25-6 HCAPLUS

CN Boron, triethyl (N,N,N',N'-tetramethylguanidine-.kappa.N''')-, (T-4)- (9CI) (CA INDEX NAME)



RN 338953-26-7 HCAPLUS

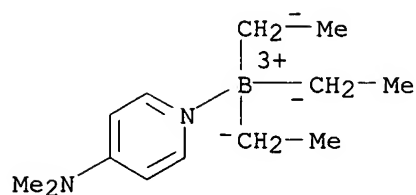
CN Boron, triethyl (2,3,4,6,7,8,9,10-octahydropyrimido[1,2-a]azepine-.kappa.N1)-, (T-4)- (9CI) (CA INDEX NAME)



RN 338953-27-8 HCAPLUS

CN Boron, (N,N-dimethyl-4-pyridinamine-.kappa.N1)triethyl-, (T-4)- (9CI) (CA INDEX NAME)

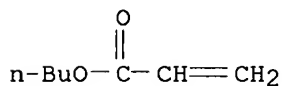




IT **25035-88-5P**, Butyl acrylate-ethyl acrylate-methacrylic acid-methyl methacrylate copolymer **83614-28-2P**, 2-Ethylhexylmethacrylate-tetrahydrofurfuryl methacrylate copolymer  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (initiator/amidine complexes, systems comprising the complexes, and polymd. compns. made therewith)  
 RN 25035-88-5 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

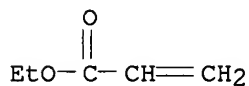
CM 1

CRN 141-32-2  
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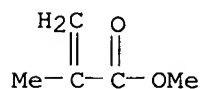
CM 2

CRN 140-88-5  
 CMF C5 H8 O2



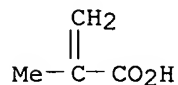
CM 3

CRN 80-62-6  
 CMF C5 H8 O2



CM 4

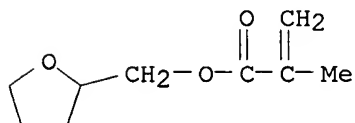
CRN 79-41-4  
CMF C4 H6 O2



RN 83614-28-2 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with  
(tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

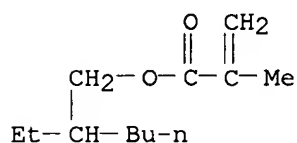
CM 1

CRN 2455-24-5  
CMF C9 H14 O3



CM 2

CRN 688-84-6  
CMF C12 H22 O2



L46 ANSWER 13 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 2001:338583 HCAPLUS  
DN 134:340826  
TI Polymerization-initiating system comprising initiator-hydroxide and  
initiator-alkoxide complexes  
IN Moren, Dean M.  
PA 3M Innovative Properties Company, USA  
SO PCT Int. Appl., 31 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001032716	A1	20010510	WO 2000-US4912	20000225
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,				

CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 US 6486090 B1 20021126 US 1999-433476 19991104  
 EP 1240207 A1 20020918 EP 2000-911993 20000225  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL  
 JP 2003513160 T2 20030408 JP 2001-535414 20000225  
 PRAI US 1999-433476 A 19991104  
 WO 2000-US4912 W 20000225  
 OS MARPAT 134:340826  
 AB Title initiator system comprises: (1) a complexed initiator comprising at least one of a complex of a complexing agent comprising at least one hydroxide and an initiator or a complex of a complexing agent comprising at least one alkoxide and an initiator and (2) a **decomplexer**. A kit useful for bonding two substrates comprises a polymerizable compn. and the above initiator system.  
 IC ICM C08F004-00  
 ICS C09J004-00; C09D004-00; C08F220-00  
 CC 35-3 (Chemistry of Synthetic High **Polymers**)  
 Section cross-reference(s): 37, 38  
 IT **106677-58-1**  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (abs rubber, graft; polymn.-initiating system comprising initiator-hydroxide and initiator-alkoxide complexes)  
 IT **97-94-9**, Triethylborane 124-41-4, Sodium methoxide 865-47-4  
 1310-73-2, Sodium hydroxide, uses  
 RL: CAT (Catalyst use); USES (Uses)  
 (polymn.-initiating system comprising initiator-hydroxide and initiator-alkoxide complexes)  
 IT **338461-08-8P**  
 RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (polymn.-initiating system comprising initiator-hydroxide and initiator-alkoxide complexes)  
 IT **9010-88-2**, Ethyl acrylate-methyl methacrylate copolymer  
**9011-14-7**, Elvacite 2010  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (polymn.-initiating system comprising initiator-hydroxide and initiator-alkoxide complexes)  
 IT **106677-58-1**  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (abs rubber, graft; polymn.-initiating system comprising initiator-hydroxide and initiator-alkoxide complexes)  
 RN 106677-58-1 HCAPLUS  
 CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene, graft (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 107-13-1

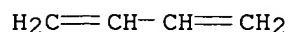
CMF C3 H3 N



CM 2

CRN 106-99-0

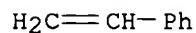
CMF C4 H6



CM 3

CRN 100-42-5

CMF C8 H8



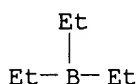
IT 97-94-9, Triethylborane

RL: CAT (Catalyst use); USES (Uses)

(polymn.-initiating system comprising initiator-hydroxide and initiator-alkoxide complexes)

RN 97-94-9 HCAPLUS

CN Borane, triethyl- (8CI, 9CI) (CA INDEX NAME)



IT 338461-08-8P

RL: IMF (Industrial manufacture); POF (Polymer in formulation);

TEM (Technical or engineered material use); PREP (Preparation);

USES (Uses)

(polymn.-initiating system comprising initiator-hydroxide and initiator-alkoxide complexes)

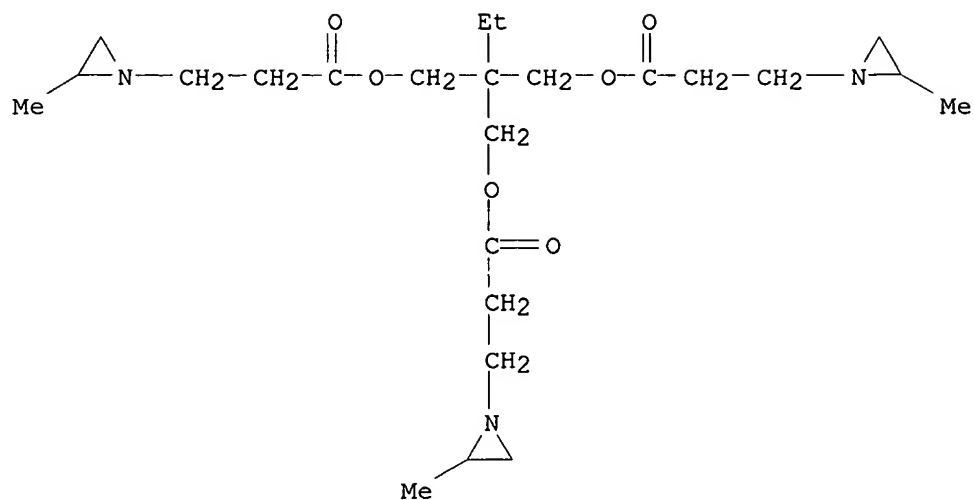
RN 338461-08-8 HCAPLUS

CN 1-Aziridinepropanoic acid, 2-methyl-, 2-ethyl-2-[[3-(2-methyl-1-aziridinyl)-1-oxopropoxy]methyl]-1,3-propanediyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 64265-57-2

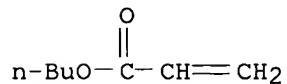
CMF C24 H41 N3 O6



CM 2

CRN 141-32-2

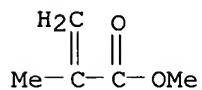
CMF C7 H12 O2



CM 3

CRN 80-62-6

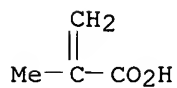
CMF C5 H8 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



IT 9010-88-2, Ethyl acrylate-methyl methacrylate copolymer  
9011-14-7, Elvacite 2010

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(polymn.-initiating system comprising initiator-hydroxide and initiator-alkoxide complexes)

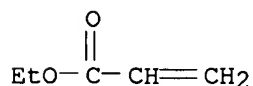
RN 9010-88-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5

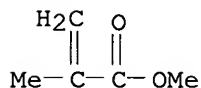
CMF C5 H8 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



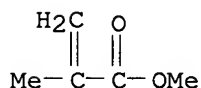
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 14 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:699207 HCAPLUS

DN 133:282232

TI Branched polyolefin polymers as additives in fuel and lubricating oil compositions

IN Janssen, Koen Jan Gerarda; Bostoen, Claude Leo

PA DSM Copolymer, Inc., Neth.

SO U.S., 30 pp., Cont.-in-part of U.S. 6,084,030.

CODEN: USXXAM

DT Patent  
 LA English  
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6127481	A	20001003	US 1996-683518	19960712
	US 6084030	A	20000704	US 1995-511402	19950804
	CA 2228421	AA	19970220	CA 1996-2228421	19960708
	CN 1198757	A	19981111	CN 1996-197344	19960807
	BR 9703906	A	20000912	BR 1997-3906	19970609
	CA 2207691	AA	19980112	CA 1997-2207891	19970617
	EP 818525	A2	19980114	EP 1997-304774	19970701
	EP 818525	A3	19980204		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	AU 9728608	A1	19980122	AU 1997-28608	19970711
	CN 1172846	A	19980211	CN 1997-114629	19970711
PRAI	US 1995-511402	A2	19950804		
	US 1996-683518	A	19960712		
AB	A branched polyolefin additive, for use in fuel and/or lubricating oil, has a comb, star, nanogel, and structural combinations in which many polyolefin arms (e.g. ethylene-propylene copolymers) are attached to a backbone having repeating units contg. aliph. groups, arom. groups, heteroatom-contg. groups and combinations (e.g. polyhydrosilanes).				
IC	ICM C08G077-12				
NCL	525106000				
CC	35-4 (Chemistry of Synthetic High Polymers) Section cross-reference(s): 51				
IT	Polyvinyl acetals RL: <b>IMF (Industrial manufacture)</b> ; MOA (Modifier or additive use); <b>PREP (Preparation)</b> ; USES (Uses) (formals, reaction products with polyolefins; branched polyolefin polymers as additives in fuel and lubricating oil compns.)				
IT	Polysiloxanes, preparation RL: <b>IMF (Industrial manufacture)</b> ; MOA (Modifier or additive use); <b>PREP (Preparation)</b> ; USES (Uses) (polyolefin-, graft, branched, multi-armed; branched polyolefin polymers as additives in fuel and lubricating oil compns.)				
IT	Dendritic polymers RL: <b>IMF (Industrial manufacture)</b> ; MOA (Modifier or additive use); <b>PREP (Preparation)</b> ; USES (Uses) (reaction products with polyolefins; branched polyolefin polymers as additives in fuel and lubricating oil compns.)				
IT	Polyolefins RL: <b>IMF (Industrial manufacture)</b> ; MOA (Modifier or additive use); <b>PREP (Preparation)</b> ; USES (Uses) (siloxane-, graft, branched, multi-armed; branched polyolefin polymers as additives in fuel and lubricating oil compns.)				
IT	101-54-2DP, N-Phenyl-p-phenylenediamine, reaction products with maleic anhydride-grafted branched polyolefins 108-31-6DP, 2,5-Furandione, reaction products with polyolefins and backbone polymers, preparation 109-55-7DP, reaction products with maleic anhydride-grafted branched polyolefins 112-57-2DP, reaction products with maleic anhydride-grafted branched polyolefins <b>280-64-8DP</b> , 9-Borabicyclo[3.3.1]nonane, reaction products with polyolefins 537-65-5DP, 4,4'-Diaminodiphenylamine, reaction products with dendrimers and polyolefins 2038-03-1DP, 4-(2-Aminoethyl)morpholine, reaction products with maleic anhydride-grafted branched polyolefins 2094-99-7DP, Reaction products				

with polyolefins, Me methacrylate and styrene **7338-27-4DP**, Methyl **itaconate**, reaction products with tris(aminoethyl)benzene and hydroxy-terminated polyolefins 9002-88-4DP, Polyethylene, reaction products with polymeric backbones 9003-07-0DP, Polypropylene, reaction products with polymeric backbones 9003-11-6DP, diamine derivs., reaction products with maleic anhydride-grafted branched polyolefins 9004-73-3DP, Polymethylhydrosiloxane, reaction products with polyolefins 9010-79-1DP, Ethylene-propylene copolymer, reaction products with polymeric backbones 9011-13-6DP, Maleic anhydride-styrene copolymer, reaction products with amine-terminated polyolefins 10025-78-2DP, Trichlorosilane, reaction products with polyolefins **25189-84-8DP**, Poly(acryloyl chloride), reaction products with polyolefins 26587-28-0P, Ethylene-propylene-1-octene copolymer 26603-40-7DP, reaction products with hydroxy-terminated polyolefins **26937-45-1DP**, Poly(methacryloyl chloride), reaction products with polyolefins 65605-36-9DP, reaction products with polyolefins 118550-50-8DP, Tolonate HDT, reaction products with polyolefins 181116-31-4P 202073-27-6P 202073-28-7P 202073-29-8P 202073-30-1P 202073-31-2P 202073-32-3P **202073-33-4P** **202073-34-5P** 202073-35-6DP, 1,3,5-Benzenetriethanamine, reaction products with Me **itaconate** and polyolefins 211293-55-9P  
 RL: **IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)**

(branched polyolefin polymers as additives in fuel and lubricating oil compns.)

IT **280-64-8DP**, 9-Borabicyclo[3.3.1]nonane, reaction products with polyolefins **7338-27-4DP**, Methyl **itaconate**, reaction products with tris(aminoethyl)benzene and hydroxy-terminated polyolefins **25189-84-8DP**, Poly(acryloyl chloride), reaction products with polyolefins **26937-45-1DP**, Poly(methacryloyl chloride), reaction products with polyolefins **202073-33-4P** **202073-34-5P**  
 RL: **IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)**  
 (branched polyolefin polymers as additives in fuel and lubricating oil compns.)

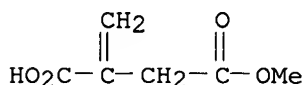
RN 280-64-8 HCAPLUS

CN 9-Borabicyclo[3.3.1]nonane (8CI, 9CI) (CA INDEX NAME)



RN 7338-27-4 HCAPLUS

CN Butanedioic acid, methylene-, 4-methyl ester (9CI) (CA INDEX NAME)



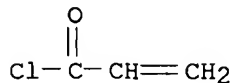
RN 25189-84-8 HCAPLUS

CN 2-Propenoyl chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1



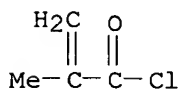
CRN 814-68-6  
CMF C3 H3 Cl O



RN 26937-45-1 HCAPLUS  
CN 2-Propenoyl chloride, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

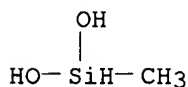
CRN 920-46-7  
CMF C4 H5 Cl O



RN 202073-33-4 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 9-borabicyclo[3.3.1]nonane, ethene, methyl 2-methyl-2-propenoate, 2-methyl-2-propenoyl chloride, methylsilanediol and 1-propene (9CI) (CA INDEX NAME)

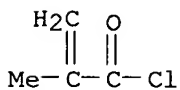
CM 1

CRN 43641-90-3  
CMF C H6 O2 Si



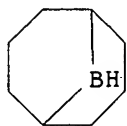
CM 2

CRN 920-46-7  
CMF C4 H5 Cl O



CM 3

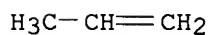
CRN 280-64-8  
CMF C8 H15 B



CM 4

CRN 115-07-1

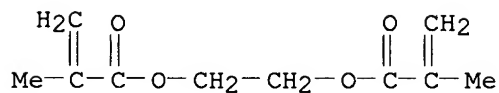
CMF C3 H6



CM 5

CRN 97-90-5

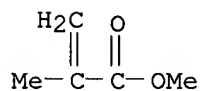
CMF C10 H14 O4



CM 6

CRN 80-62-6

CMF C5 H8 O2



CM 7

CRN 74-85-1

CMF C2 H4

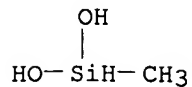


RN 202073-34-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 9-borabicyclo[3.3.1]nonane, ethene, methyl 2-methyl-2-propenoate, methylsilanediol and 1-propene (9CI) (CA INDEX NAME)

CM 1

CRN 43641-90-3  
CMF C H6 O2 Si



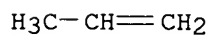
CM 2

CRN 280-64-8  
CMF C8 H15 B



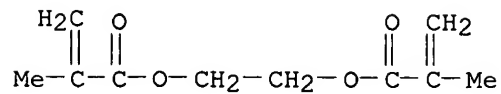
CM 3

CRN 115-07-1  
CMF C3 H6



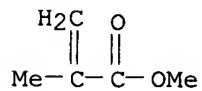
CM 4

CRN 97-90-5  
CMF C10 H14 O4



CM 5

CRN 80-62-6  
CMF C5 H8 O2



CM 6

CRN 74-85-1

CMF C2 H4

 $\text{H}_2\text{C}=\text{CH}_2$ 

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 15 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1999:795864 HCAPLUS

DN 132:36190

TI Initiator systems and adhesive compositions

IN Deviny, Edward J.; Moren, Dean M.

PA Minnesota Mining and Manufacturing Company, USA

SO PCT Int. Appl., 52 pp.

CODEN: PIXXD2

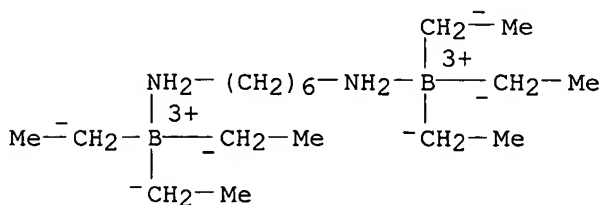
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9964475	A1	19991216	WO 1998-US12296	19980612
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9880700	A1	19991230	AU 1998-80700	19980612
	BR 9815904	A	20010220	BR 1998-15904	19980612
	EP 1095067	A1	20010502	EP 1998-929041	19980612
	R:	CH, DE, FR, GB, IT, LI			
	JP 2002517570	T2	20020618	JP 2000-553480	19980612
PRAI	WO 1998-US12296	A	19980612		
AB	Initiator systems of the present invention include both a complexed initiator and a carboxylic acid <b>decomplexer</b> . For example, dicarboxylic acid <b>decomplexer</b> , carboxylic acid ester <b>decomplexers</b> , and monocarboxylic acid <b>decomplexers</b> (preferably those comprising an alkyl group having at least nine carbon atoms for low odor comps.) are useful in the present invention. Malonic acid was used as a <b>decomplexer</b> for an initiator contg. triethylborane:hexamethylenediamine complex and Crosslinker CX 100 in an adhesive system contg. tetrahydrofurfuryl methacrylate and 2-ethylhexyl methacrylate.				
IC	ICM C08F004-52				
	ICS C09J004-00				
CC	35-3 (Chemistry of Synthetic High Polymers) Section cross-reference(s): 38				
ST	<b>decomplexer</b> acid anhydride ester polymn initiator; adhesive compn initiator <b>decomplexer</b>				

- IT Carboxylic acids, uses  
RL: CAT (Catalyst use); USES (Uses)  
(dicarboxylic, **decomplexer**; initiator systems and adhesive compns.)
- IT Carboxylic acids, uses  
RL: CAT (Catalyst use); USES (Uses)  
(esters, **decomplexer**; initiator systems and adhesive compns.)
- IT 110-16-7, Maleic acid, uses 110-94-1, Glutaric acid 141-82-2, Malonic acid, uses 86753-12-0, 2-Methacryloyloxyethyl succinate 109603-25-0, 2-Methacryloyloxyethyl Maleate 252671-83-3, Acryloyloxypropyl maleate  
RL: CAT (Catalyst use); USES (Uses)  
(**decomplexer**; initiator systems and adhesive compns.)
- IT 15498-42-7P  
RL: **IMF (Industrial manufacture)**; **PREP (Preparation)**  
(**decomplexer**; initiator systems and adhesive compns.)
- IT 108-30-5, Succinic anhydride, uses 108-55-4, Glutaric anhydride 760-93-0, Methacrylic anhydride 64265-57-2, **CROSSLINKER CX-100 223674-50-8**  
RL: CAT (Catalyst use); USES (Uses)  
(initiator systems and adhesive compns.)
- IT **25852-37-3P**, Butyl acrylate-methyl methacrylate copolymer **30525-32-7P**, tert-Butyl acrylate-methyl methacrylate copolymer **83614-28-2P**, Tetrahydrofurfuryl methacrylate-2-ethylhexyl methacrylate copolymer **134437-52-8P**, Butyl acrylate-tert-butyl acrylate-methyl methacrylate copolymer **252376-76-4P**, Isobornyl acrylate-tetrahydrofurfuryl methacrylate copolymer **252376-77-5P**, Isooctyl acrylate-tetrahydrofurfuryl methacrylate copolymer **252643-53-1P**, N,N-Dimethylacrylamide-ethoxyethyl methacrylate copolymer  
RL: **IMF (Industrial manufacture)**; **TEM (Technical or engineered material use)**; **PREP (Preparation)**; USES (Uses)  
(initiator systems and adhesive compns.)
- IT **223674-50-8**  
RL: CAT (Catalyst use); USES (Uses)  
(initiator systems and adhesive compns.)
- RN 223674-50-8 HCAPLUS
- CN Boron, hexaethyl[.mu.-(1,6-hexanediamine-.kappa.N:.kappa.N')]di- (9CI)  
(CA INDEX NAME)



- IT **25852-37-3P**, Butyl acrylate-methyl methacrylate copolymer **30525-32-7P**, tert-Butyl acrylate-methyl methacrylate copolymer **83614-28-2P**, Tetrahydrofurfuryl methacrylate-2-ethylhexyl methacrylate copolymer **134437-52-8P**, Butyl acrylate-tert-butyl acrylate-methyl methacrylate copolymer **252376-76-4P**, Isobornyl acrylate-tetrahydrofurfuryl methacrylate copolymer **252376-77-5P**, Isooctyl acrylate-tetrahydrofurfuryl methacrylate copolymer **252643-53-1P**, N,N-Dimethylacrylamide-ethoxyethyl methacrylate

copolymer

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses) (initiator systems and adhesive compns.)

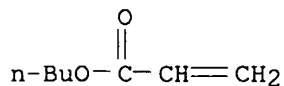
RN 25852-37-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2

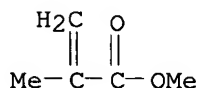
CMF C7 H12 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



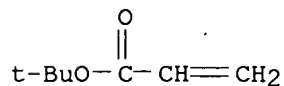
RN 30525-32-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1,1-dimethylethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 1663-39-4

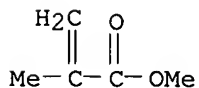
CMF C7 H12 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



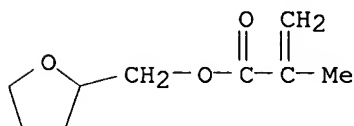
RN 83614-28-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with  
(tetrahydro-2-furanyl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2455-24-5

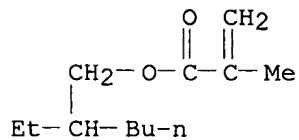
CMF C9 H14 O3



CM 2

CRN 688-84-6

CMF C12 H22 O2



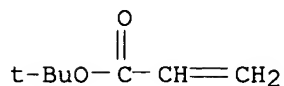
RN 134437-52-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate  
and 1,1-dimethylethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 1663-39-4

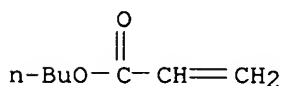
CMF C7 H12 O2



CM 2

CRN 141-32-2

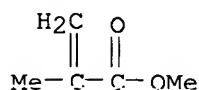
CMF C7 H12 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



RN 252376-76-4 HCAPLUS

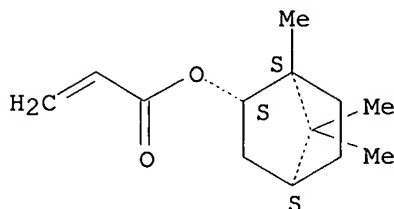
CN 2-Propenoic acid, 2-methyl-, (tetrahydro-2-furanyl)methyl ester, polymer with rel-(1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5888-33-5

CMF C13 H20 O2

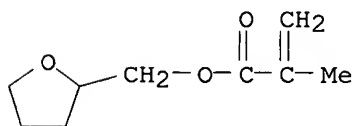
Relative stereochemistry.



CM 2

CRN 2455-24-5

CMF C9 H14 O3



RN 252376-77-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, (tetrahydro-2-furanyl)methyl ester, polymer with isooctyl 2-propenoate (9CI) (CA INDEX NAME)

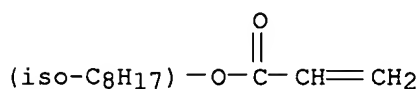
CM 1

CRN 29590-42-9

CMF C11 H20 O2

CCI IDS

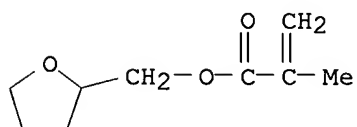




CM 2

CRN 2455-24-5

CMF C9 H14 O3



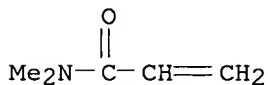
RN 252643-53-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethoxyethyl ester, polymer with  
N,N-dimethyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 2680-03-7

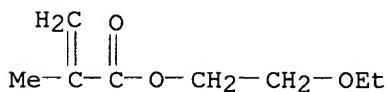
CMF C5 H9 N O



CM 2

CRN 2370-63-0

CMF C8 H14 O3



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 16 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1999:552237 HCAPLUS

DN 131:286877

TI Polymerization of vinyl monomers. Initiating **systems** based on  
quinones and organoelement compounds

AU Grishin, D. F.; Moikin, A. A.; Cherkasov, V. K.

CS Research Institute of Chemistry, Nizhni Novgorod State University,  
Novgorod, 603600, Russia

SO Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (1999), 41(4),

595-599

CODEN: VSSBEE; ISSN: 1023-3091

PB MAIK Nauka

DT Journal

LA Russian

AB When combined with organoboron or antimony compds., quinones, which usually act as inhibitors of radical processes, are capable of effective initiation of radical vinyl polymn. at a rather low temp. and make it possible to control the **lifetime** of the polymer chain. The mol. mass of the resulting polymers increases linearly with conversion, which provides indirect evidence that polymn. proceeds according to the pseudo-living chain mechanism.

CC 35-4 (Chemistry of Synthetic High **Polymers**)

IT Quinones

RL: CAT (Catalyst use); USES (Uses)

(an organoboron or antimony compd.- a quinone initiating **systems** for vinyl monomer polymn.)

IT Polymerization catalysts

(radical; an organoboron or antimony compd.- a quinone initiating **systems** for vinyl monomer polymn.)

IT 106-51-4, 2,5-Cyclohexadiene-1,4-dione, uses 617-85-6, Triethylantimony **1116-39-8**, Triisobutylborane 3383-21-9, 3,5-Di(tert-butyl)-1,2-benzoquinone

RL: CAT (Catalyst use); USES (Uses)

(an organoboron or antimony compd.- a quinone initiating **systems** for vinyl monomer polymn.)

IT **9011-14-7P**, Poly(methyl methacrylate)

RL: **SPN (Synthetic preparation); PREP (Preparation)**

(an organoboron or antimony compd.- a quinone initiating **systems** for vinyl monomer polymn.)

IT **1116-39-8**, Triisobutylborane

RL: CAT (Catalyst use); USES (Uses)

(an organoboron or antimony compd.- a quinone initiating **systems** for vinyl monomer polymn.)

RN 1116-39-8 HCAPLUS

CN Borane, tris(2-methylpropyl)- (9CI) (CA INDEX NAME)

i-Bu

|

i-Bu-B-Bu-i

IT **9011-14-7P**, Poly(methyl methacrylate)

RL: **SPN (Synthetic preparation); PREP (Preparation)**

(an organoboron or antimony compd.- a quinone initiating **systems** for vinyl monomer polymn.)

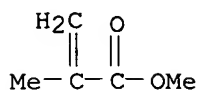
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

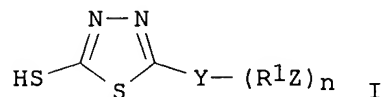
CRN 80-62-6

CMF C5 H8 O2



L46 ANSWER 17 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1999:271178 HCAPLUS  
 DN 130:339006  
 TI Adhesive **composition** suitable for adhering noble metals  
 IN Kimura, Mikio; Aizawa, Masayuki  
 PA Tokuyama K. K., Japan  
 SO Jpn. Kokai Tokkyo Koho, 22 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 11116900	A2	19990427	JP 1997-288337	19971021
PRAI	JP 1997-288337		19971021		
GI					



AB The adhesive **compn.** comprises a radical polymerizable mercaptothiazole deriv. represented by a general formula I (R<sup>1</sup> = C1-20 divalent org. residue; Z = radical polymerizable org. group; Y = S, N, NH; n = 1, 2), a radical polymerizable monomer(s), and a polymn. initiator(s), and optionally a filler(s). The adhesive **compn.**, showing excellent adhesion, durability, and **storage** stability, is esp. suitable as a dental adhesive **compn.** or dental cement.

ICM C09J004-00  
 ICS A61K006-08; A61K006-083; C07D285-125; C07D285-135  
 CC 38-3 (**Plastics** Fabrication and Uses)  
 Section cross-reference(s): 63  
 ST radical polymerizable mercaptothiazole adhesive **compn** noble metal dental  
 IT Dental materials and appliances  
 (adhesives; radical polymerizable adhesive **compn.** esp. suitable for dental use)  
 IT Dental materials and appliances  
 (cements; radical polymerizable adhesive **compn.** esp. suitable for dental use)  
 IT Polyethers, uses  
 RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)  
 (in radical polymerizable adhesive **compn.** esp. suitable for dental use)

IT Polymerization  
(radical; radical polymerizable adhesive **compn.** esp. suitable for dental use)

IT **26426-05-1P**, Bis-GMA-triethyleneglycol dimethacrylate copolymer  
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(filler; in radical polymerizable adhesive **compn.** esp. suitable for dental use)

IT **9011-14-7**, Polymethyl methacrylate 14808-60-7, Quartz, uses 127715-18-8, Zirconia-silica mixt  
RL: TEM (Technical or engineered material use); USES (Uses)  
(filler; in radical polymerizable adhesive **compn.** esp. suitable for dental use)

IT 1188-09-6, Trimethyleneglycol dimethacrylate 1985-51-9, Neopentylglycol dimethacrylate 15214-89-8 32435-46-4, Bis(2-methacryloyloxyethyl)hydrogenphosphate 41637-38-1, 2,2-Bis(4-methacryloxypolyethoxyphenyl)propane 70293-55-9, 4-Methacryloyloxyethyltrimellitic anhydride 108362-85-2, 11-Methacryloyloxy-1,1-undecanedicarboxylic acid  
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)  
(in radical polymerizable adhesive **compn.** esp. suitable for dental use)

IT 174728-86-0 179408-88-9 179408-89-0 179408-90-3 179408-91-4 179408-95-8 224319-08-8  
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)  
(polymerizable mercaptothiazole; in radical polymerizable adhesive **compn.** esp. suitable for dental use)

IT 94-36-0, Benzoyl peroxide, uses 99-97-8, N,N-Dimethyl-p-toluidine **143-66-8**, Sodium tetraphenylborate 824-79-3, Sodium p-toluenesulfinate 2124-31-4, p-Dimethylaminoacetophenone 2867-47-2, N,N-Dimethylaminoethyl methacrylate 3077-12-1, N,N-Bis(2-hydroxyethyl)-p-toluidine 10287-53-3, Ethyl 4-Dimethylaminobenzoate 10373-78-1, Camphorquinone  
RL: CAT (Catalyst use); USES (Uses)  
(polymn. initiator; in radical polymerizable adhesive **compn.** esp. suitable for dental use)

IT 7440-57-5, Gold, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(radical polymerizable adhesive **compn.** suitable for adhering)

IT **26426-05-1P**, Bis-GMA-triethyleneglycol dimethacrylate copolymer  
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(filler; in radical polymerizable adhesive **compn.** esp. suitable for dental use)

RN 26426-05-1 HCAPLUS

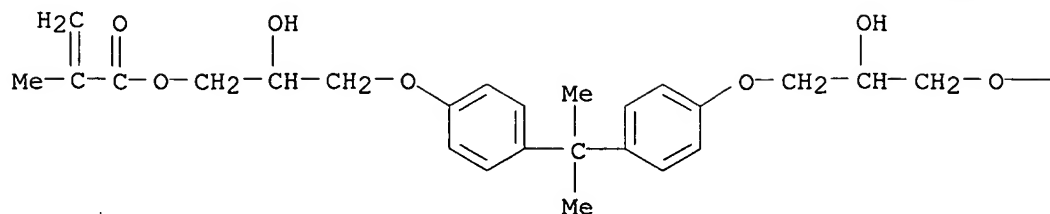
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester, polymer with (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

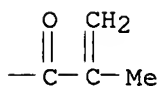
CRN 1565-94-2

CMF C29 H36 O8

PAGE 1-A



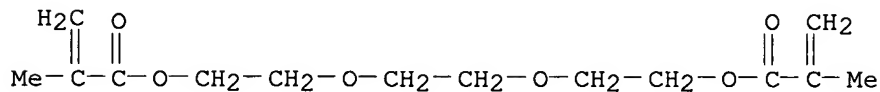
PAGE 1-B



CM 2

CRN 109-16-0

CMF C14 H22 O6



IT 9011-14-7, Polymethyl methacrylate

RL: TEM (Technical or engineered material use); USES (Uses)  
(filler; in radical polymerizable adhesive **compn.** esp.  
suitable for dental use)

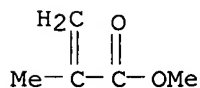
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2

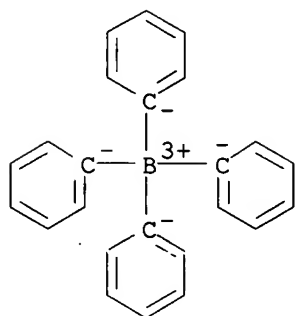


IT 143-66-8, Sodium tetraphenylborate

RL: CAT (Catalyst use); USES (Uses)  
(polymn. initiator; in radical polymerizable adhesive **compn.**  
esp. suitable for dental use)

RN 143-66-8 HCAPLUS

CN Borate(1-), tetraphenyl-, sodium (8CI, 9CI) (CA INDEX NAME)



● Na<sup>+</sup>

- L46 ANSWER 18 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1999:54683 HCAPLUS  
 DN 130:183027  
 TI Side chain copolymers containing liquid crystalline and photoactive chromophore  
 AU Samui, Asit Baran; Kang, Suk Hoon; Choi, Dong Hoon  
 CS Department of Textile Engineering, Kyung Hee University, Kyungki-Do, 449-701, S. Korea  
 SO Molecular Crystals and Liquid Crystals Science and Technology, Section A: Molecular Crystals and Liquid Crystals (1998), 316, 27-30  
 CODEN: MCLCE9; ISSN: 1058-725X  
 PB Gordon & Breach Science Publishers  
 DT Journal  
 LA English  
 AB Liq. cryst. (LC) monomers and photoactive monomers with various structures were synthesized and copolymd. to obtain copolymers based on methacrylate mesogenic monomers and methacrylate/itaconate photoactive monomers. The resulting copolymers contain a LC unit and varying photoactive units. The phase transition temp. of the copolymers depends on comonomer structure and spacer length. The transition temp. of an itaconate bearing copolymer increased as the spacer length decreased.  
 CC 36-5 (Physical Properties of Synthetic High **Polymers**)  
 Section cross-reference(s): 35, 75  
 IT 82200-53-1P  
 RL: PNU (Preparation, unclassified); PRP (Properties); RCT (Reactant); **PREP (Preparation)**; RACT (Reactant or reagent)  
 (liq. crystal monomer; prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive chromophore side chains)  
 IT 189232-83-5P 189232-84-6P  
 RL: PRP (Properties); RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)  
 (monomer; prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive chromophore side chains)  
 IT 126390-52-1P  
 RL: PRP (Properties); RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)

(photoactive monomer; prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive chromophore side chains)

IT 220630-29-5P 220630-30-8P 220630-31-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive chromophore side chains)

IT 97-65-4, reactions 100-61-8, N-Methyl aniline, reactions 104-03-0, 4-Nitrophenylacetic acid 109-83-1, N-Methyl-ethanolamine 123-08-0, 4-Hydroxybenzaldehyde 456-27-9, 4-Nitrobenzenediazonium tetrafluoroborate 459-57-4, 4-Fluorobenzaldehyde 920-46-7, Methacryloyl chloride 2009-83-8, 6-Chloro-1-hexanol

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive chromophore side chains)

IT 220630-29-5P 220630-30-8P 220630-31-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive chromophore side chains)

RN 220630-29-5 HCAPLUS

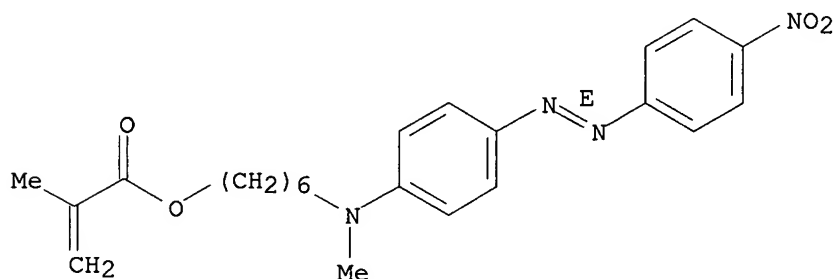
CN Benzoic acid, 4-[[6-[(2-methyl-1-oxo-2-propenyl)oxy]hexyl]oxy]-, 4-methoxyphenyl ester, polymer with 6-[methyl[4-[(1E)-(4-nitrophenyl)azo]phenyl]amino]hexyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 126390-52-1

CMF C23 H28 N4 O4

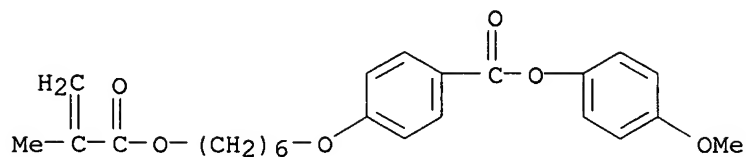
Double bond geometry as shown.



CM 2

CRN 65718-64-1

CMF C24 H28 O6



RN 220630-30-8 HCAPLUS

CN Butanedioic acid, methylene-, bis[6-[4-[(1E)-2-(4-nitrophenyl)ethenyl]phenoxy]hexyl] ester, polymer with 4-methoxyphenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate (9CI) (CA INDEX NAME)

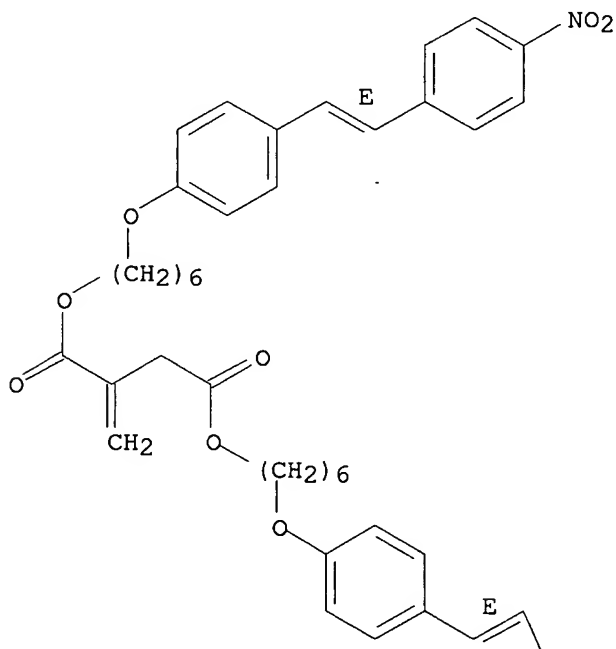
CM 1

CRN 189232-84-6

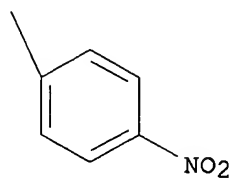
CMF C45 H48 N2 O10

Double bond geometry as shown.

PAGE 1-A



PAGE 2-A

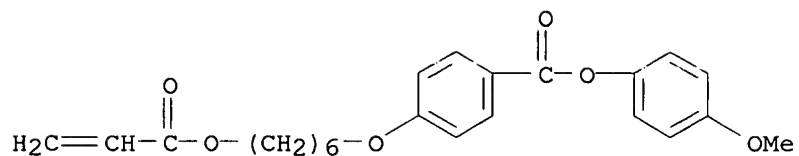




CM 2

CRN 82200-53-1

CMF C23 H26 O6



RN 220630-31-9 HCAPLUS

CN Butanedioic acid, methylene-, bis[2-[methyl[4-[(1E)-2-(4-nitrophenyl)ethenyl]phenyl]amino]ethyl] ester, polymer with 4-methoxyphenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate (9CI) (CA INDEX NAME)

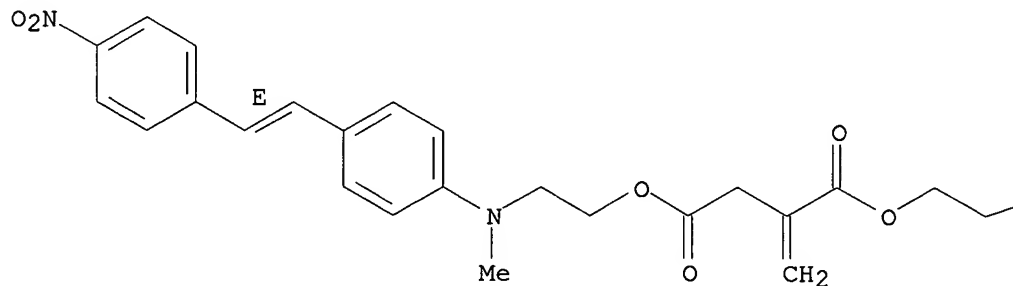
CM 1

CRN 189232-83-5

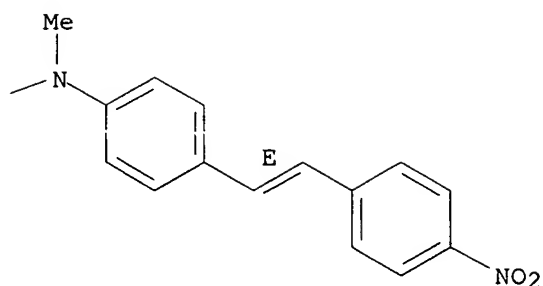
CMF C39 H38 N4 O8

Double bond geometry as shown.

PAGE 1-A



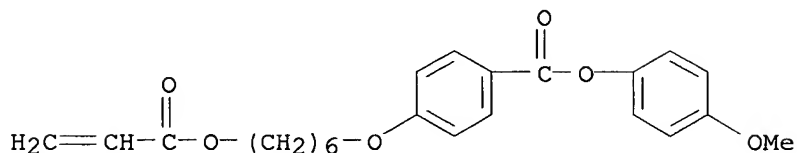
PAGE 1-B



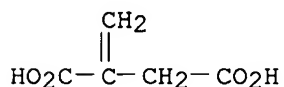
CM 2

CRN 82200-53-1

CMF C23 H26 O6



IT 97-65-4, reactions 456-27-9, 4-Nitrobenzenediazonium tetrafluoroborate  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive chromophore side chains)  
 RN 97-65-4 HCAPLUS  
 CN Butanedioic acid, methylene- (9CI) (CA INDEX NAME)



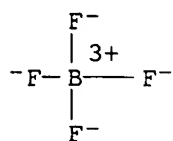
RN 456-27-9 HCAPLUS  
 CN Benzenediazonium, 4-nitro-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 14874-70-5

CMF B F4

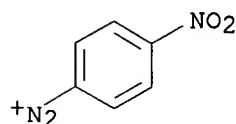
CCI CCS



CM 2

CRN 14368-49-1

CMF C6 H4 N3 O2



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 19 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1998:614359 HCAPLUS

DN 129:303264

TI One-component epoxy resin **compositions** with improved adhesion  
properties at high temperatures and long pot **life**

IN Shibata, Tomoaki

PA Toshiba Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10251379	A2	19980922	JP 1997-74431	19970311
PRAI	JP 1997-74431		19970311		

AB The epoxy resin compns. comprise (A) mixts. comprising epoxy resins contg. .gtoreq.2 epoxy groups per mol. chain, cresol novolak epoxy resins, defoaming agents, and moistening agents and (B) BF3-amine complex salts as latent curing accelerators and are useful for surface treatment or impregnation of coils for elec. motor rotors. Bisphenol A diglycidyl ether 90, YDCN 704 (cresol novolak glycidyl ether) 10, TSA 720 (defoaming agent) 0.1, Modaflow (moistening agent) 0.1, and Anchor 1115 (BF3-isopropylamine complex) 10 parts were mixed to give a **compn** . showing good adhesion properties at 200.degree. by a specified test and long pot **life**.

IC ICM C08G059-38

ICS C08G059-72; C09D163-00

CC 37-6 (**Plastics** Manufacture and Processing)

Section cross-reference(s): 38, 76

ST epoxy resin adhesion elec rotor coil; pot **life** epoxy resin**compn**; heat resistance epoxy resin **compn**; siliconedefoaming agent epoxy resin **compn**; phenolic epoxy resin adhesion

rotor coil; boron fluoride amine curing accelerator epoxy

IT Crosslinking catalysts

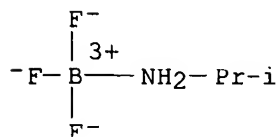
- (BF3-amine complex salts; one-component epoxy resin compns. with improved adhesion properties at high temps. and long pot **life** for surface treatment elec. motor rotor coils)
- IT Polysiloxanes, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (TSA 720, antifoaming agents; one-component epoxy resin compns. with improved adhesion properties at high temps. and long pot **life** for surface treatment elec. motor rotor coils)
- IT Phenolic resins, properties  
 Phenolic resins, properties  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (epoxy; one-component epoxy resin compns. with improved adhesion properties at high temps. and long pot **life** for surface treatment elec. rotor coils)
- IT Adhesion, physical  
 Antifoaming agents  
 Electric motors  
 Heat-resistant materials  
 (one-component epoxy resin compns. with improved adhesion properties at high temps. and long pot **life** for surface treatment elec. motor rotor coils)
- IT Electric coils  
 Impregnating materials  
 (one-component epoxy resin compns. with improved adhesion properties at high temps. and long pot **life** for surface treatment elec. rotor coils)
- IT Epoxy resins, properties  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (phenolic, novolak; one-component epoxy resin compns. with improved adhesion properties at high temps. and long pot **life** for surface treatment elec. motor rotor coils)
- IT Epoxy resins, properties  
 Epoxy resins, properties  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (phenolic; one-component epoxy resin compns. with improved adhesion properties at high temps. and long pot **life** for surface treatment elec. rotor coils)
- IT **3776-04-3**, Anchor 1115  
 RL: CAT (Catalyst use); USES (Uses)  
 (Anchor 1115, latent curing accelerator; one-component epoxy resin compns. with improved adhesion properties at high temps. and long pot **life** for surface treatment elec. motor rotor coils)
- IT **26376-86-3**, Modaflow  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (moistening agent; one-component epoxy resin compns. with improved adhesion properties at high temps. and long pot **life** for surface treatment elec. motor rotor coils)
- IT 214422-63-6P  
 RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (one-component epoxy resin compns. with improved adhesion properties at high temps. and long pot **life** for surface treatment elec. motor rotor coils)
- IT **3776-04-3**, Anchor 1115

RL: CAT (Catalyst use); USES (Uses)

(Anchor 1115, latent curing accelerator; one-component epoxy resin compns. with improved adhesion properties at high temps. and long pot **life** for surface treatment elec. motor rotor coils)

RN 3776-04-3 HCAPLUS

CN Boron, trifluoro(2-propanamine)-, (T-4)- (9CI) (CA INDEX NAME)



IT 26376-86-3, Modaflow

RL: MOA (Modifier or additive use); USES (Uses)

(moistening agent; one-component epoxy resin compns. with improved adhesion properties at high temps. and long pot **life** for surface treatment elec. motor rotor coils)

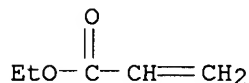
RN 26376-86-3 HCAPLUS

CN 2-Propenoic acid, ethyl ester, polymer with 2-ethylhexyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5

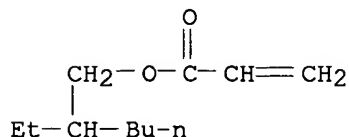
CMF C5 H8 O2



CM 2

CRN 103-11-7

CMF C11 H20 O2



L46 ANSWER 20 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1998:608622 HCAPLUS

DN 129:231156

TI Photoactivatable nitrogen-containing bases based on .alpha.-ammonium ketones, iminium ketones or amidinium ketones and aryl borates and preparation and use thereof

IN Hall-Goulle, Veronique; Turner, Sean Colm; Cunningham, Allan Francis

PA Ciba Specialty Chemicals Holding Inc., Switz.

SO PCT Int. Appl., 59 pp.

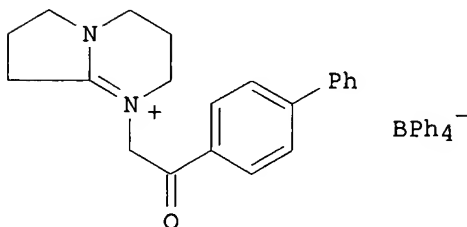
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9838195	A1	19980903	WO 1998-EP846	19980214
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9864972	A1	19980918	AU 1998-64972	19980214
	AU 726375	B2	20001102		
	BR 9807790	A	20000215	BR 1998-7790	19980214
	EP 1032576	A1	20000906	EP 1998-910669	19980214
	R:	BE, DE, DK, ES, FR, GB, IT, NL, SE, FI			
	JP 2001513765	T2	20010904	JP 1998-537248	19980214
	ZA 9801556	A	19980826	ZA 1998-1556	19980225
	TW 425399	B	20010311	TW 1998-87103457	19980310
PRAI	CH 1997-444	A	19970226		
	WO 1998-EP846	W	19980214		
OS	MARPAT 129:231156				
GI					



AB .alpha.-Ammonium ketones, iminium ketones or amidinium ketones in the form of their tetraaryl- or triarylalkylborate salts are photochem. converted into amines, imines or amidines on exposure to visible or UV light, which are useful as initiators in base-catalyzed reactions, esp. polymn. reactions. The salts can be used in one-pot **systems** having an extremely long **storage life** since the active initiator is formed only after exposure to light. Thus,  $7.4 \times 10^{-5}$  mol each of tetraphenylborate salt I (prepn. given) and 2,2,6,6-tetramethyl-1-piperidinyloxyl were dissolved in a 1:1 mixt. of di-Me malonate and Bu acrylate and the mixt. exposed to light to give 55% Michael addn. polymn. after 2 h and 100% after 6 h.

IC ICM C07F005-02

ICS C08F004-52; C08F002-48

CC 35-3 (Chemistry of Synthetic High **Polymers**)

Section cross-reference(s): 28, 29

IT Polyurethanes, preparation

RL: **IMF** (Industrial manufacture); **PREP** (Preparation)

(acrylates; photoactivatable nitrogen-contg. bases based on .alpha.-ammonium ketones, iminium ketones or amidinium ketones and aryl borates and prepn. as photoinitiators for)

IT Epoxy resins, preparation

Polyesters, preparation

RL: **IMF (Industrial manufacture); PREP (Preparation)**

(photoactivatable nitrogen-contg. bases based on .alpha.-ammonium ketones, iminium ketones or amidinium ketones and aryl borates and prepn. as photoinitiators for)

IT 7355-42-2P 19748-13-1P 64971-99-9P 70916-14-2P 97045-00-6P  
 97301-06-9P 100575-89-1P 212752-76-6P 212752-78-8P 212752-80-2P  
 212752-83-5P 212752-86-8P 212752-90-4P 212752-92-6P 212752-94-8P  
 212752-96-0P 212752-98-2P 212753-02-1P 212753-05-4P 212753-07-6P  
 212753-09-8P 212753-11-2P 212753-13-4P 212753-14-5P 212753-15-6P  
 212753-16-7P 212753-18-9P 212753-19-0P

RL: RCT (Reactant); **SPN (Synthetic preparation); PREP**

**(Preparation); RACT (Reactant or reagent)**

(intermediate; photoactivatable nitrogen-contg. bases based on .alpha.-ammonium ketones, iminium ketones or amidinium ketones and aryl borates and prepn. and use thereof)

IT 107525-95-1P 212753-21-4P 212753-24-7P  
 212753-27-0P 212753-29-2P 212753-31-6P  
 212753-33-8P 212753-36-1P 212753-38-3P  
 212753-41-8P 212753-44-1P 212753-47-4P  
 212753-49-6P 212753-52-1P 212753-55-4P  
 212753-57-6P 212753-59-8P 212753-61-2P  
 212753-63-4P 212753-64-5P 212753-67-8P  
 212753-69-0P 212753-71-4P 212753-73-6P  
 212753-75-8P 212753-77-0P 212753-79-2P  
 212753-81-6P 212753-83-8P

RL: CAT (Catalyst use); **SPN (Synthetic preparation); PREP**

**(Preparation); USES (Uses)**

(photoactivatable nitrogen-contg. bases based on .alpha.-ammonium ketones, iminium ketones or amidinium ketones and aryl borates and prepn. and use thereof)

IT 211190-81-7P, Diethyl malonate-1,5-pentanediol copolymer  
 212753-85-0P, Butyl acrylate-dimethyl malonate copolymer

RL: **IMF (Industrial manufacture); PREP (Preparation)**

(photoactivatable nitrogen-contg. bases based on .alpha.-ammonium ketones, iminium ketones or amidinium ketones and aryl borates and prepn. as photoinitiators for)

IT 107525-95-1P 212753-21-4P 212753-24-7P  
 212753-27-0P 212753-29-2P 212753-31-6P  
 212753-33-8P 212753-36-1P 212753-38-3P  
 212753-41-8P 212753-44-1P 212753-47-4P  
 212753-49-6P 212753-52-1P 212753-55-4P  
 212753-57-6P 212753-59-8P 212753-61-2P  
 212753-63-4P 212753-64-5P 212753-67-8P  
 212753-69-0P 212753-71-4P 212753-73-6P  
 212753-75-8P 212753-77-0P 212753-79-2P  
 212753-81-6P 212753-83-8P

RL: CAT (Catalyst use); **SPN (Synthetic preparation); PREP**

**(Preparation); USES (Uses)**

(photoactivatable nitrogen-contg. bases based on .alpha.-ammonium ketones, iminium ketones or amidinium ketones and aryl borates and prepn. and use thereof)

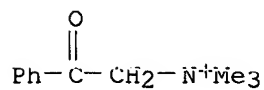
RN 107525-95-1 HCAPLUS

CN Benzeneethanaminium, N,N,N-trimethyl-.beta.-oxo-, tetraphenylborate(1-)

(9CI) (CA INDEX NAME)

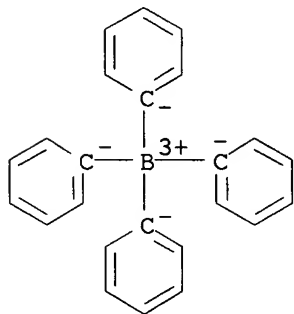
CM 1

CRN 24472-87-5  
CMF C11 H16 N O



CM 2

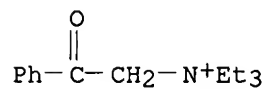
CRN 4358-26-3  
CMF C24 H20 B  
CCI CCS



RN 212753-21-4 HCAPLUS  
CN Benzeneethanaminium, N,N,N-triethyl-.beta.-oxo-, tetraphenylborate(1-)  
(9CI) (CA INDEX NAME)

CM 1

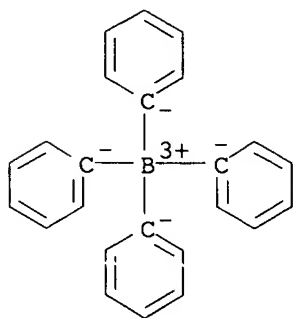
CRN 54405-56-0  
CMF C14 H22 N O



CM 2

CRN 4358-26-3  
CMF C24 H20 B  
CCI CCS

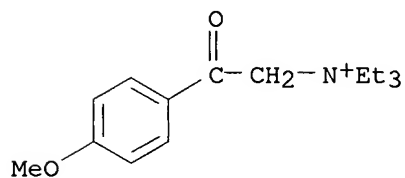




RN 212753-24-7 HCAPLUS  
 CN Benzeneethanaminium, N,N,N-triethyl-4-methoxy-.beta.-oxo-,  
 tetraphenylborate(1-) (9CI) (CA INDEX NAME)

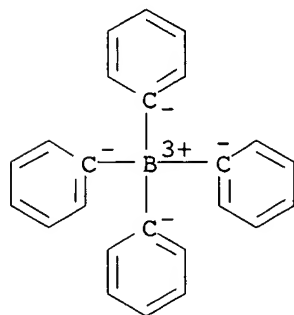
CM 1

CRN 212753-23-6  
 CMF C15 H24 N O2



CM 2

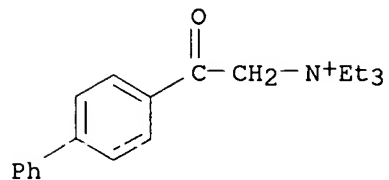
CRN 4358-26-3  
 CMF C24 H20 B  
 CCI CCS



RN 212753-27-0 HCAPLUS  
 CN [1,1'-Biphenyl]-4-ethanaminium, N,N,N-triethyl-.beta.-oxo-,  
 tetraphenylborate(1-) (9CI) (CA INDEX NAME)

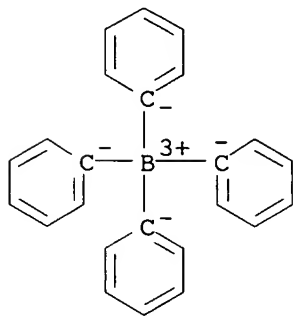
CM 1

CRN 212753-26-9  
CMF C20 H26 N O



CM 2

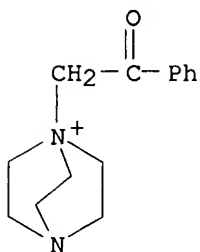
CRN 4358-26-3  
CMF C24 H20 B  
CCI CCS



RN 212753-29-2 HCAPLUS  
CN 4-Aza-1-azoniabicyclo[2.2.2]octane, 1-(2-oxo-2-phenylethyl)-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

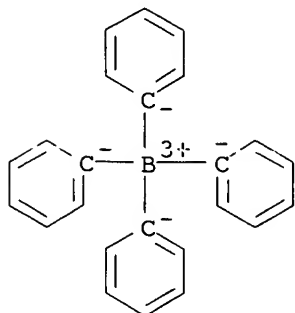
CM 1

CRN 176758-24-0  
CMF C14 H19 N2 O



CM 2

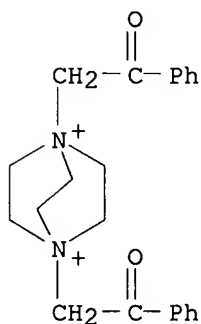
CRN 4358-26-3  
 CMF C24 H20 B  
 CCI CCS



RN 212753-31-6 HCAPLUS  
 CN 1,4-Diazoniabicyclo[2.2.2]octane, 1,4-bis(2-oxo-2-phenylethyl)-,  
 bis[tetraphenylborate(1-)] (9CI) (CA INDEX NAME)

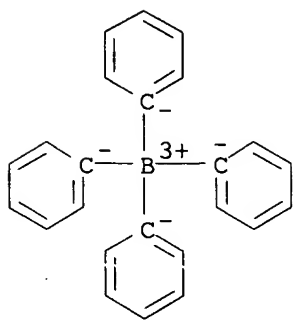
CM 1

CRN 212753-30-5  
 CMF C22 H26 N2 O2



CM 2

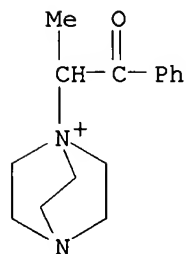
CRN 4358-26-3  
 CMF C24 H20 B  
 CCI CCS



RN 212753-33-8 HCAPLUS  
 CN 4-Aza-1-azoniabicyclo[2.2.2]octane, 1-(1-methyl-2-oxo-2-phenylethyl)-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

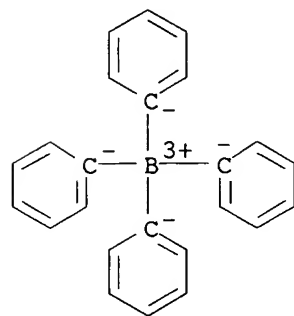
CM 1

CRN 212753-32-7  
 CMF C15 H21 N2 O



CM 2

CRN 4358-26-3  
 CMF C24 H20 B  
 CCI CCS



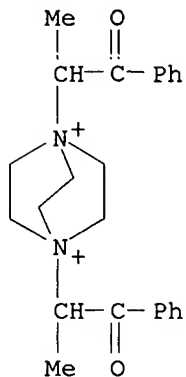
RN 212753-36-1 HCAPLUS  
 CN 1,4-Diazoniabicyclo[2.2.2]octane, 1,4-bis(1-methyl-2-oxo-2-phenylethyl)-,

bis[tetraphenylborate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 212753-35-0

CMF C24 H30 N2 O2

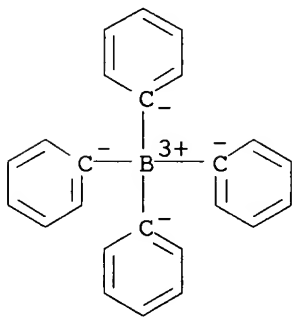


CM 2

CRN 4358-26-3

CMF C24 H20 B

CCI CCS



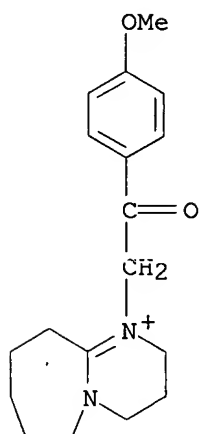
RN 212753-38-3 HCAPLUS

CN Pyrimido[1,2-a]azepinium, 2,3,4,6,7,8,9,10-octahydro-1-[2-(4-methoxyphenyl)-2-oxoethyl]-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 212753-37-2

CMF C18 H25 N2 O2

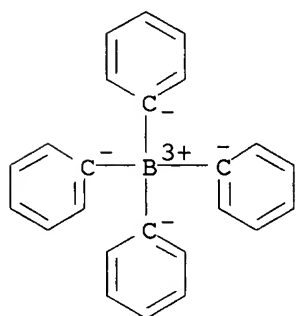


CM 2

CRN 4358-26-3

CMF C24 H20 B

CCI CCS



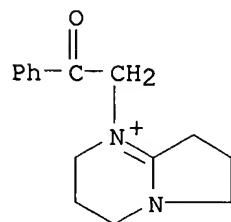
RN 212753-41-8 HCAPLUS

CN Pyrrolo[1,2-a]pyrimidinium, 2,3,4,6,7,8-hexahydro-1-(2-oxo-2-phenylethyl)-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 212753-40-7

CMF C15 H19 N2 O

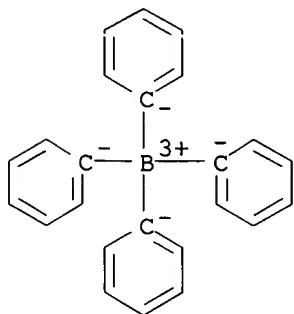


CM 2

CRN 4358-26-3

CMF C24 H20 B

CCI CCS



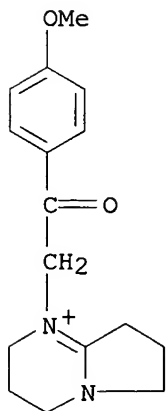
RN 212753-44-1 HCAPLUS

CN Pyrrolo[1,2-a]pyrimidinium, 2,3,4,6,7,8-hexahydro-1-[2-(4-methoxyphenyl)-2-oxoethyl]-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 212753-43-0

CMF C16 H21 N2 O2

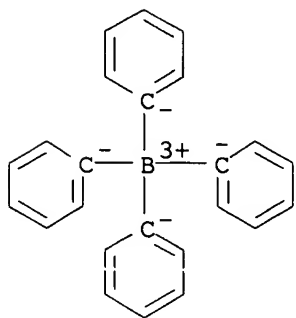


CM 2

CRN 4358-26-3

CMF C24 H20 B

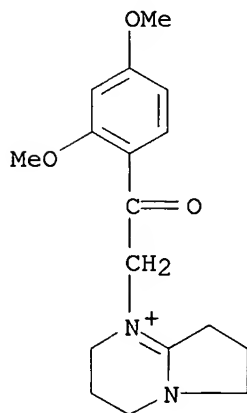
CCI CCS



RN 212753-47-4 HCAPLUS  
 CN Pyrrolo[1,2-a]pyrimidinium, 1-[2-(2,4-dimethoxyphenyl)-2-oxoethyl]-  
 2,3,4,6,7,8-hexahydro-, tetrakis(phenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

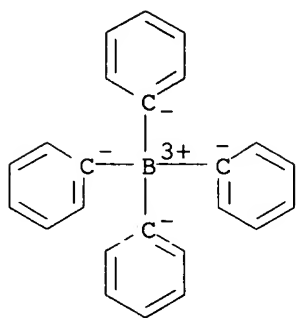
CRN 212753-46-3  
 CMF C17 H23 N2 O3



CM 2

CRN 4358-26-3  
 CMF C24 H20 B  
 CCI CCS

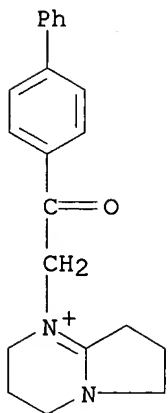




RN 212753-49-6 HCAPLUS  
 CN Pyrrolo[1,2-a]pyrimidinium, 1-[2-([1,1'-biphenyl]-4-yl)-2-oxoethyl]-  
 2,3,4,6,7,8-hexahydro-, tetrakis(phenyl)borate(1-) (9CI) (CA INDEX NAME)

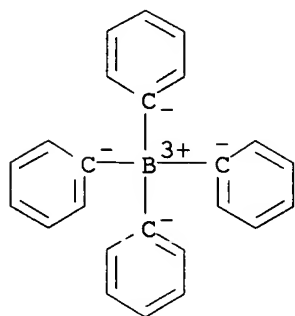
CM 1

CRN 212753-48-5  
 CMF C21 H23 N2 O



CM 2

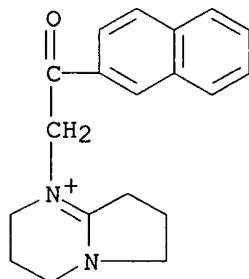
CRN 4358-26-3  
 CMF C24 H20 B  
 CCI CCS



RN 212753-52-1 HCAPLUS  
 CN Pyrrolo[1,2-a]pyrimidinium, 2,3,4,6,7,8-hexahydro-1-[2-(2-naphthalenyl)-2-oxoethyl]-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

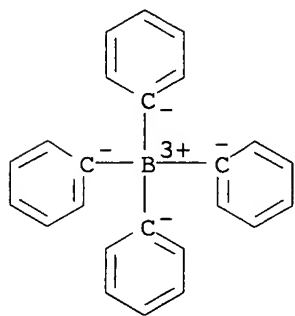
CM 1

CRN 212753-51-0  
 CMF C19 H21 N2 O



CM 2

CRN 4358-26-3  
 CMF C24 H20 B  
 CCI CCS



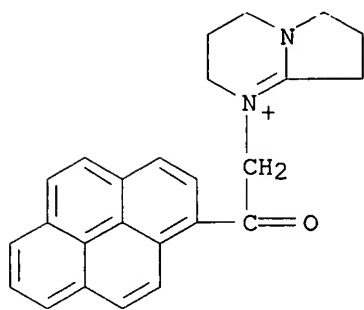
RN 212753-55-4 HCAPLUS

CN Pyrrolo[1,2-a]pyrimidinium, 2,3,4,6,7,8-hexahydro-1-[2-oxo-2-(1-pyrenyl)ethyl]-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 212753-54-3

CMF C25 H23 N2 O

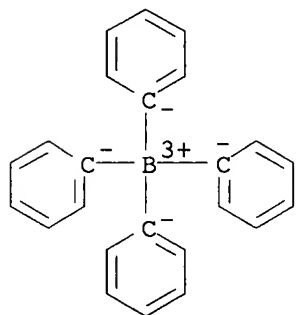


CM 2

CRN 4358-26-3

CMF C24 H20 B

CCI CCS



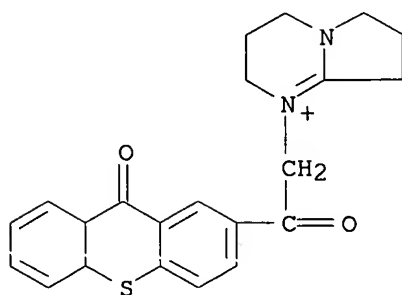
RN 212753-57-6 HCAPLUS

CN Pyrrolo[1,2-a]pyrimidinium, 1-[2-(8a,10a-dihydro-9-oxo-9H-thioxanthen-2-yl)-2-oxoethyl]-2,3,4,6,7,8-hexahydro-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

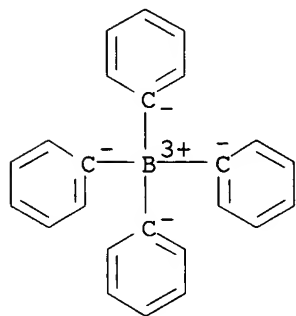
CRN 212753-56-5

CMF C22 H23 N2 O2 S



CM 2

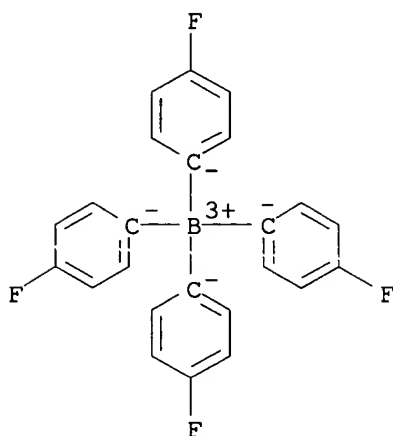
CRN 4358-26-3  
CMF C24 H20 B  
CCI CCS



RN 212753-59-8 HCAPLUS  
CN Benzeneethanaminium, N,N,N-triethyl-.beta.-oxo-, tetrakis(4-fluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

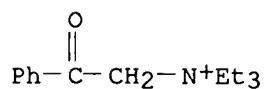
CRN 75964-78-2  
CMF C24 H16 B F4  
CCI CCS



CM 2

CRN 54405-56-0

CMF C14 H22 N O



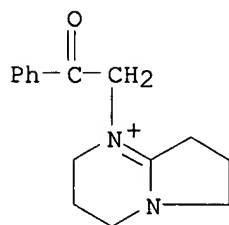
RN 212753-61-2 HCAPLUS

CN Pyrrolo[1,2-a]pyrimidinium, 2,3,4,6,7,8-hexahydro-1-(2-oxo-2-phenylethyl)-, tetrakis(4-fluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 212753-40-7

CMF C15 H19 N2 O

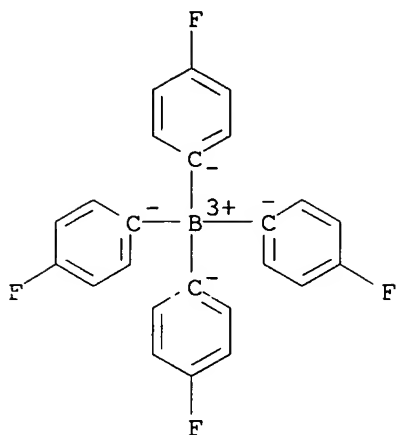


CM 2

CRN 75964-78-2

CMF C24 H16 B F4

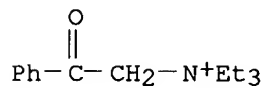
CCI CCS



RN 212753-63-4 HCAPLUS  
 CN Benzeneethanaminium, N,N,N-triethyl-.beta.-oxo-,  
 tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

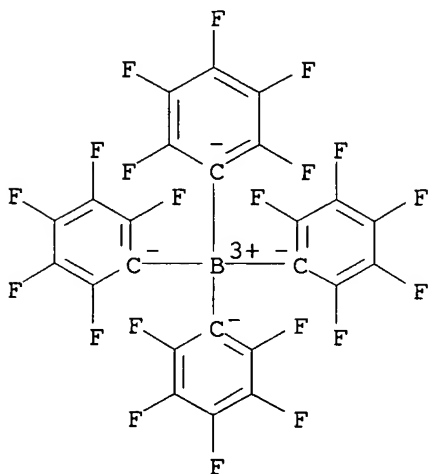
CM 1

CRN 54405-56-0  
 CMF C14 H22 N O



CM 2

CRN 47855-94-7  
 CMF C24 B F20  
 CCI CCS



RN 212753-64-5 HCAPLUS

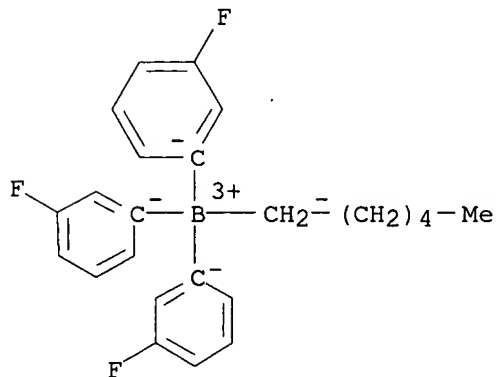
CN Benzeneethanaminium, N,N,N-triethyl-.beta.-oxo-, (T-4)-tris(3-fluorophenyl)hexylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 191726-44-0

CMF C24 H25 B F3

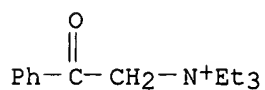
CCI CCS



CM 2

CRN 54405-56-0

CMF C14 H22 N O



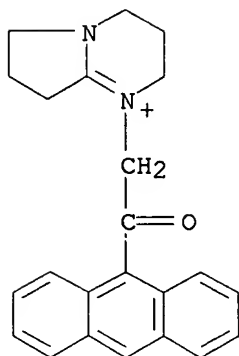
RN 212753-67-8 HCAPLUS

CN Pyrrolo[1,2-a]pyrimidinium, 1-[2-(9-anthracenyl)-2-oxoethyl]-2,3,4,6,7,8-hexahydro-, (T-4)-tris(3-fluorophenyl)hexylborate(1-) (9CI) (CA INDEX NAME)

CM 1

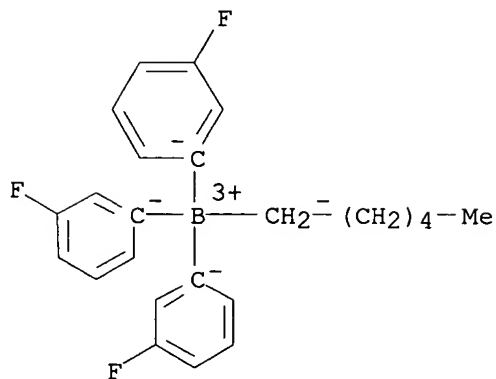
CRN 212753-66-7

CMF C23 H23 N2 O



CM 2

CRN 191726-44-0  
CMF C24 H25 B F3  
CCI CCS

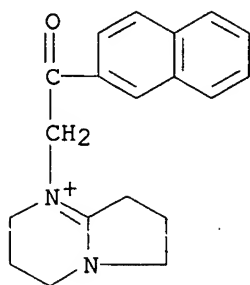


RN 212753-69-0 HCAPLUS  
CN Pyrrolo[1,2-a]pyrimidinium, 2,3,4,6,7,8-hexahydro-1-[2-(2-naphthalenyl)-2-oxoethyl]-, (T-4)-tris(3-fluorophenyl)hexylborate(1-) (9CI) (CA INDEX NAME)

CM 1

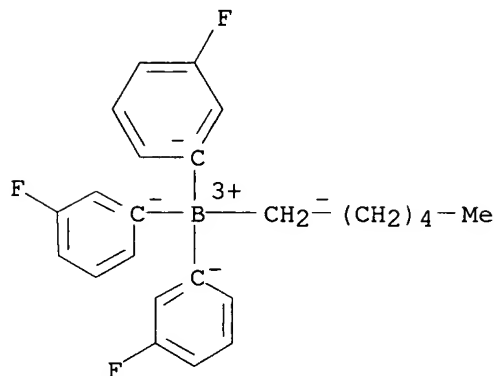
CRN 212753-51-0  
CMF C19 H21 N2 O





CM 2

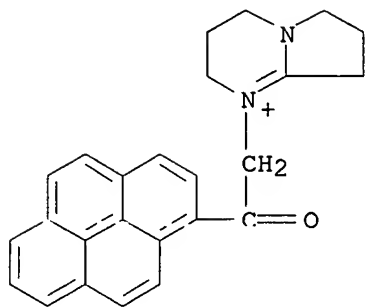
CRN 191726-44-0  
CMF C24 H25 B F3  
CCI CCS



RN 212753-71-4 HCAPLUS  
CN Pyrrolo[1,2-a]pyrimidin-2-yl ethyl pyrene-2-carboxylate, (T-4)-tris(3-fluorophenyl)hexylborate(1-) (9CI) (CA INDEX NAME)

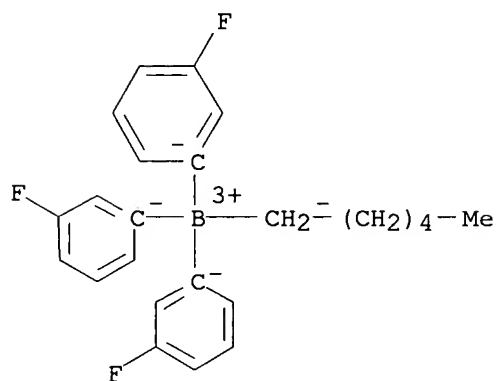
CM 1

CRN 212753-54-3  
CMF C25 H23 N2 O



CM 2

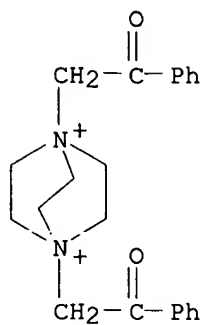
CRN 191726-44-0  
CMF C24 H25 B F3  
CCI CCS



RN 212753-73-6 HCAPLUS  
CN 1,4-Diazoniabicyclo[2.2.2]octane, 1,4-bis(2-oxo-2-phenylethyl)-,  
bis[(T-4)-tris(3-fluorophenyl)hexylborate(1-)] (9CI) (CA INDEX NAME)

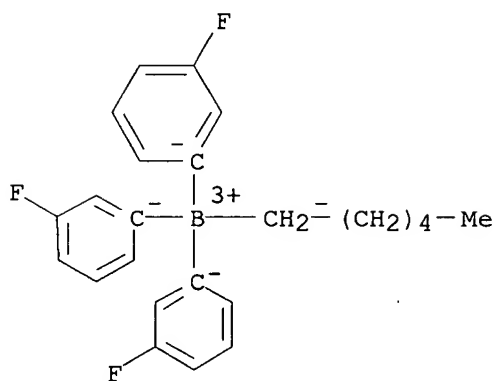
CM 1

CRN 212753-30-5  
CMF C22 H26 N2 O2



CM 2

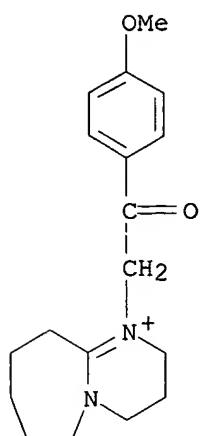
CRN 191726-44-0  
CMF C24 H25 B F3  
CCI CCS



RN 212753-75-8 HCAPLUS  
CN Pyrimido[1,2-a]azepinium, 2,3,4,6,7,8,9,10-octahydro-1-[2-(4-methoxyphenyl)-2-oxoethyl]-, (T-4)-tris(3-fluorophenyl)hexylborate(1-)  
(9CI) (CA INDEX NAME)

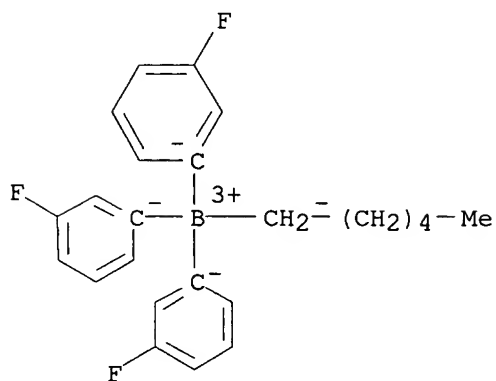
CM 1

CRN 212753-37-2  
CMF C18 H25 N2 O2



CM 2

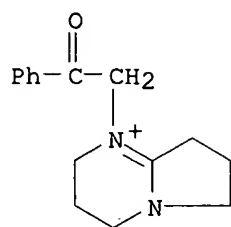
CRN 191726-44-0  
CMF C24 H25 B F3  
CCI CCS



RN 212753-77-0 HCAPLUS  
CN Pyrrolo[1,2-a]pyrimidin-5-ium, 2,3,4,6,7,8-hexahydro-1-(2-oxo-2-phenylethyl)-, (T-4)-tris(3-fluorophenyl)hexylborate(1-) (9CI) (CA INDEX NAME)

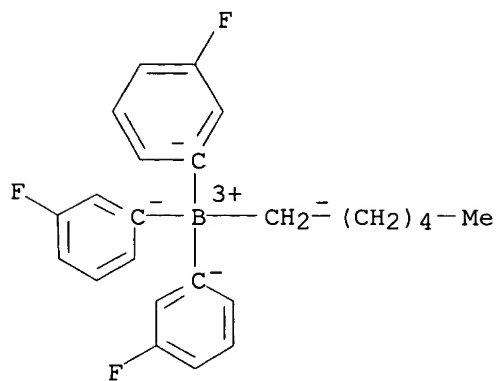
CM 1

CRN 212753-40-7  
CMF C15 H19 N2 O



CM 2

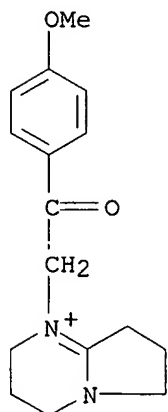
CRN 191726-44-0  
CMF C24 H25 B F3  
CCI CCS



RN 212753-79-2 HCAPLUS  
CN Pyrrolo[1,2-a]pyrimidin-2-ylidene, (T-4)-tris(3-fluorophenyl)hexylborate(1-) (9CI) (CA INDEX NAME)

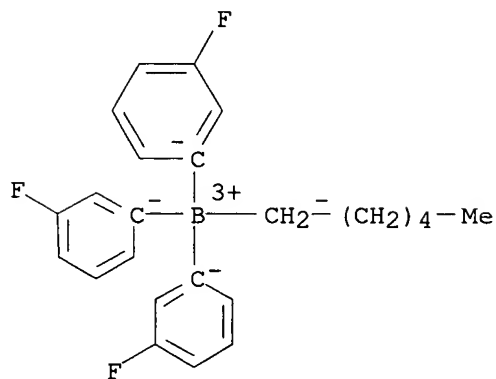
CM 1

CRN 212753-43-0  
CMF C16 H21 N2 O2



CM 2

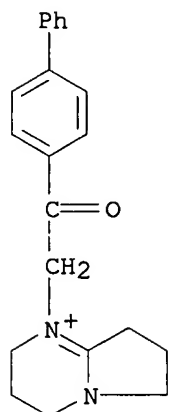
CRN 191726-44-0  
CMF C24 H25 B F3  
CCI CCS



RN 212753-81-6 HCAPLUS  
CN Pyrrolo[1,2-a]pyrimidin-5-yl-2-oxoethyl 4-methoxybenzoate(1-)  
(9CI) (CA INDEX NAME)

CM 1

CRN 212753-48-5  
CMF C21 H23 N2 O

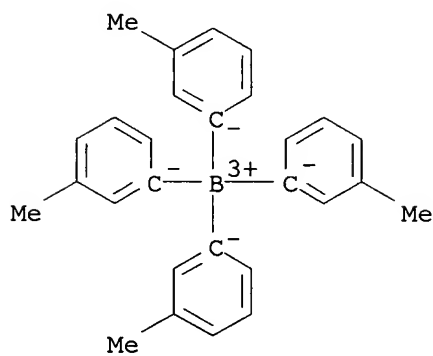


CM 2

CRN 87314-42-9

CMF C28 H28 B

CCI CCS



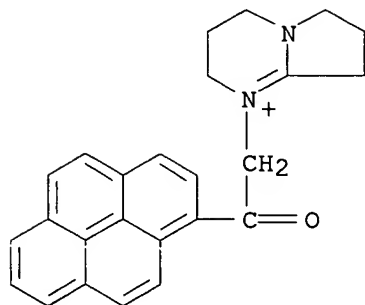
RN 212753-83-8 HCAPLUS

CN Pyrrolo[1,2-a]pyrimidinium, 2,3,4,6,7,8-hexahydro-1-[2-oxo-2-(1-pyrenyl)ethyl]-, tetrakis(3-methylphenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 212753-54-3

CMF C25 H23 N2 O

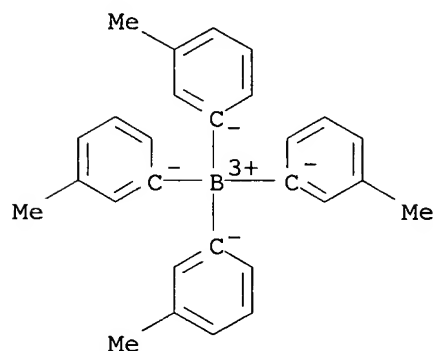


CM 2

CRN 87314-42-9

CMF C28 H28 B

CCI CCS



IT **212753-85-0P**, Butyl acrylate-dimethyl malonate copolymer.

RL: **IMF (Industrial manufacture); PREP (Preparation)**

(photoactivatable nitrogen-contg. bases based on .alpha.-ammonium ketones, iminium ketones or amidinium ketones and aryl borates and prepn. as photoinitiators for)

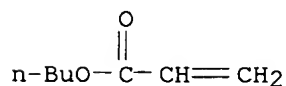
RN 212753-85-0 HCAPLUS

CN Propanedioic acid, dimethyl ester, polymer with butyl 2-propenoate (9CI)  
(CA INDEX NAME)

CM 1

CRN 141-32-2

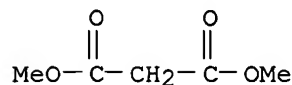
CMF C7 H12 O2



CM 2



CRN 108-59-8  
CMF C5 H8 O4



RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 21 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1998:239591 HCAPLUS

DN 128:271294

TI One-component epoxy resin **compositions** with easy handling and workability

IN Sakura, Shigehiko; Fujimoto, Takazo

PA Sumitomo Bakelite Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10101773	A2	19980421	JP 1996-263370	19961003
PRAI	JP 1996-263370		19961003		

OS MARPAT 128:271294

AB Title compns. contain epoxy resins (A), encapsulated amine hardeners, 10-300% (based on A) inorg. fillers, and borate esters B(OR1)(OR2)(OR3) (R1-3 = H, C.ltoreq.20 alkyl, aryl). The compns. show good **storage** stability even in the presence of the fillers which tend to break the microcapsules in processing. Thus, 70 parts a powd. amine compd. (av. particle diam. 5 .mu.m, prepd. from 46 parts diethylenetriamine and 100 parts Epikote 1001) was dispersed for 30 min in a soln. contg. 0.5 part tolylene diisocyanate and 150 parts cyclohexanone, sepd. from the soln., and dried to obtain .apprx.70 parts an amine hardener encapsulated with a polyisocyanate layer. One-component epoxy resin **compn.** contg. Epikote 828 100, the encapsulated hardener 15, cryst. silica powders 150, B(OEt)3 0.3, a black pigment paste 1, and a silicone antifoaming agent 1 part took 2.7 days to form gel (40.degree.) and showed gel time 95 s [hot plate (120.degree.); JIS C 2105] and continuous running time .gtoreq.60 days (30.degree.).

IC ICM C08G059-50

ICS C08K003-00; C08K005-55; C08L063-00

CC 37-6 (**Plastics** Manufacture and Processing)

ST one liq epoxy resin **storage** stability; encapsulated amine hardener epoxy resin; borate addn encapsulated hardener epoxy resin; inorg filler one liq epoxy resin

IT Crosslinking agents

Crosslinking catalysts

Microcapsules

(one-liq. epoxy resins contg. encapsulated amine hardeners and borate esters showing improved **storage** stability in the presence of inorg. powd. fillers)

IT Epoxy resins, uses

RL: POF (Polymer in formulation); USES (Uses)  
 (one-liq. epoxy resins contg. encapsulated amine hardeners and borate esters showing improved **storage** stability in the presence of inorg. powd. fillers)

IT 693-98-1D, 2-Methylimidazole, reaction products with bisphenol A-epichlorohydrin copolymer 23996-12-5, Curezol 2PZCN 25068-38-6D, Epikote 828, reaction products with methylimidazole  
 RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
 (crosslinking catalysts, encapsulated; one-liq. epoxy resins contg. encapsulated amine hardeners and borate esters showing improved **storage** stability in the presence of inorg. powd. fillers)

IT 471-34-1, Calcium carbonate, uses 1344-28-1, Alumina, uses 7631-86-9, Silica, uses 139351-18-1, Aerosil R974  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (fillers; one-liq. epoxy resins contg. encapsulated amine hardeners and borate esters showing improved **storage** stability in the presence of inorg. powd. fillers)

IT 26471-62-5, Tolylene diisocyanate  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (for encapsulation of amines; one-liq. epoxy resins contg. encapsulated amine hardeners and borate esters showing improved **storage** stability in the presence of inorg. powd. fillers)

IT 31326-29-1P, Bisphenol A-diethylenetriamine-epichlorohydrin copolymer  
 RL: **IMF (Industrial manufacture)**; MOA (Modifier or additive use); **PREP (Preparation)**; USES (Uses)  
 (hardener; one-liq. epoxy resins contg. encapsulated amine hardeners and borate esters showing improved **storage** stability in the presence of inorg. powd. fillers)

IT 129428-87-1, Novacure HX 3742  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (hardeners; one-liq. epoxy resins contg. encapsulated amine hardeners and borate esters showing improved **storage** stability in the presence of inorg. powd. fillers)

IT **25749-57-9P**, Acrylonitrile-methacrylic acid copolymer  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (microcapsules; one-liq. epoxy resins contg. encapsulated amine hardeners and borate esters showing improved **storage** stability in the presence of inorg. powd. fillers)

IT **121-43-7**, Trimethyl borate **150-46-9**, Triethyl borate **688-74-4**, Tributyl borate  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (one-liq. epoxy resins contg. encapsulated amine hardeners and borate esters showing improved **storage** stability in the presence of inorg. powd. fillers)

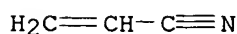
IT **25749-57-9P**, Acrylonitrile-methacrylic acid copolymer  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (microcapsules; one-liq. epoxy resins contg. encapsulated amine hardeners and borate esters showing improved **storage** stability in the presence of inorg. powd. fillers)

RN 25749-57-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-propenenitrile (9CI) (CA INDEX NAME)

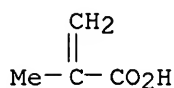
CM 1

CRN 107-13-1  
CMF C3 H3 N

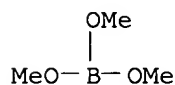


CM 2

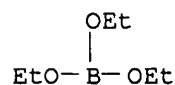
CRN 79-41-4  
CMF C4 H6 O2



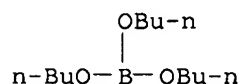
IT 121-43-7, Trimethyl borate 150-46-9, Triethyl borate  
688-74-4, Tributyl borate  
RL: MOA (Modifier or additive use); USES (Uses)  
(one-liq. epoxy resins contg. encapsulated amine hardeners and borate  
esters showing improved **storage** stability in the presence of  
inorg. powd. fillers)  
RN 121-43-7 HCAPLUS  
CN Boric acid (H3BO3), trimethyl ester (8CI, 9CI) (CA INDEX NAME)



RN 150-46-9 HCAPLUS  
CN Boric acid (H3BO3), triethyl ester (8CI, 9CI) (CA INDEX NAME)



RN 688-74-4 HCAPLUS  
CN Boric acid (H3BO3), tributyl ester (8CI, 9CI) (CA INDEX NAME)



L46 ANSWER 22 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1997:443280 HCAPLUS  
DN 127:51920  
TI Organoborane-amine initiators for acrylic adhesive compositions  
IN Deviny, E. John

PA Minnesota Mining and Manufacturing Company, USA

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9717383	A1	19970515	WO 1996-US15706	19960930
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2236939	AA	19970515	CA 1996-2236939	19960930
	AU 9672505	A1	19970529	AU 1996-72505	19960930
	EP 859801	A1	19980826	EP 1996-933975	19960930
	EP 859801	B1	20010613		
	R: CH, DE, DK, ES, FR, GB, IT, LI, NL				
	CN 1201467	A	19981209	CN 1996-198067	19960930
	CN 1106411	B	20030423		
	BR 9611590	A	19990406	BR 1996-11590	19960930
	JP 2000500172	T2	20000111	JP 1997-518168	19960930
	US 5883208	A	19990316	US 1996-746507	19961108
	US 6027813	A	20000222	US 1998-219710	19981223
PRAI	US 1995-554883	A	19951107		
	WO 1996-US15706	W	19960930		
	US 1996-746507	A3	19961108		
OS	MARPAT 127:51920				
AB	The title adhesives which exhibit low levels of mobile constituents, excellent solvent resistance, and good adhesion to low energy surfaces, use organoborane amine complex catalysts and anhydride <b>decomplexers</b> . Thus, Bu methacrylate-Me acrylate-Me methacrylate copolymer prep'd. using maleic anhydride <b>decomplexer</b> and triethylborane-hexanediamine complex catalyst gave an adhesive showing good solvent resistance when applied to PTFE or polyethylene films.				
IC	ICM C08F020-12				
	ICS C09J004-02				
CC	38-3 ( <b>Plastics</b> Fabrication and Uses)				
	Section cross-reference(s): 67				
ST	acrylic adhesive anhydride <b>decomplexer</b> ; borane amine initiator acrylic adhesive; polymn initiator acrylic monomer; solvent resistance acrylic adhesive				
IT	Anhydrides				
	RL: CAT (Catalyst use); USES (Uses)				
	(decomplexers; organoborane-amine initiators for acrylic adhesive compns.)				
IT	Acrylic polymers, uses				
	RL: IMF ( <b>Industrial manufacture</b> ); TEM (Technical or engineered material use); PREP ( <b>Preparation</b> ); USES (Uses)				
	(organoborane-amine initiators for acrylic adhesive compns.)				
IT	85-44-9, 1,3-Isobenzofurandione 97-72-3, Isobutyric anhydride 108-31-6, 2,5-Furandione, uses 117-40-8 760-93-0, Methacrylic anhydride 935-79-5, cis-1,2,3,6-Tetrahydrophthalic anhydride 2170-03-8 9011-13-6 13149-00-3, cis-1,2-Cyclohexanedicarboxylic anhydride				

25550-51-0, Methylhexahydrophthalic anhydride 42482-06-4 45896-82-0  
67527-24-6 191234-52-3, Milldride 5060

RL: CAT (Catalyst use); USES (Uses)

(decomplexers; organoborane-amine initiators for acrylic adhesive compns.)

IT 97-94-9D, Triethylborane, amine complexes 124-09-4D,  
1,6-Hexanediamine, complexes with triethylborane, uses 13048-33-4D,  
1,6-Hexanediol diacrylate, amine adducts, complexes with triethylborane  
25068-38-6D, Epon 828, amine adducts, complexes with triethylborane  
39423-51-3D, complexes with triethylborane 65605-36-9D, complexes with  
triethylborane 166674-26-2D, DCA 221, acrylate adducts, complexes with  
triethylborane

RL: CAT (Catalyst use); USES (Uses)

(organoborane-amine initiators for acrylic adhesive compns.)

IT 25685-33-0P, Butyl methacrylate-methyl acrylate-methyl  
methacrylate copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM  
(Technical or engineered material use); PREP (Preparation); USES  
(Uses)

(organoborane-amine initiators for acrylic adhesive compns.)

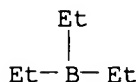
IT 97-94-9D, Triethylborane, amine complexes

RL: CAT (Catalyst use); USES (Uses)

(organoborane-amine initiators for acrylic adhesive compns.)

RN 97-94-9 HCAPLUS

CN Borane, triethyl- (8CI, 9CI) (CA INDEX NAME)



IT 25685-33-0P, Butyl methacrylate-methyl acrylate-methyl  
methacrylate copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM  
(Technical or engineered material use); PREP (Preparation); USES  
(Uses)

(organoborane-amine initiators for acrylic adhesive compns.)

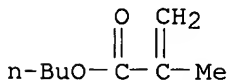
RN 25685-33-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with methyl  
2-methyl-2-propenoate and methyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 97-88-1

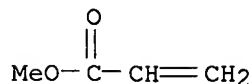
CMF C8 H14 O2



CM 2

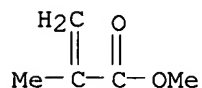
CRN 96-33-3

CMF C4 H6 O2



CM 3

CRN 80-62-6  
CMF C5 H8 O2



L46 ANSWER 23 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:439885 HCAPLUS

DN 127:51632

TI Self-crosslinkable polymers and their curable polymer **compositions**

IN Tanaka, Hozumi

PA Toyo Ink Mfg. Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09143263	A2	19970603	JP 1995-300852	19951120
	US 5900462	A	19990504	US 1996-748616	19961113
PRAI	JP 1995-300851		19951120		
	JP 1995-300852		19951120		

AB Self-crosslinkable polymers are obtained by copolymerization of (A) primary OH group-containing vinyl monomers and (B) ketone group-containing vinyl monomers having 2 adjacent C atoms (wherein one H atom binds to the other C atom). Curable polymer compositions comprise the above self-crosslinkable polymers and dehydration catalysts, which are cured by dehydration reaction of primary OH group and ketone group, show good **storage** stability and usability in both organic solvents and aqueous solutions, and are useful for coatings, inks, adhesives, etc. Thus, 20.0 g 4-hydroxybutyl acrylate and 20.0 g Me vinyl ketone were copolymerized at 74.degree. for 6 h in the presence of AIBN in DMF to give a self-crosslinkable polymer, 15.0 g of which was mixed with 0.21 g p-toluenesulfonic acid, applied on a glass plate, dried, and cured at 120.degree. for 30 min to give a film with good curing state.

IC ICM C08G067-00

ICS C08F299-00

CC 37-6 (**Plastics** Manufacture and Processing)IT **109-63-7**, Boron trifluoride-ethyl ether complex

RL: CAT (Catalyst use); USES (Uses)

(cationic polymerization catalyst; ketone and hydroxyl groups-containing

self-crosslinkable polymers and their curable polymer compositions.)

IT **191112-72-8P 191112-76-2P 191112-77-3P**

**191112-78-4P**

RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
 PRP (Properties); TEM (Technical or engineered material use); **PREP**  
**(Preparation)**; USES (Uses)

(ketone and hydroxyl groups-contg. self-crosslinkable polymers and  
 their curable polymer compns.)

IT **191112-79-5P 191112-80-8P 191112-81-9P**

RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM  
 (Technical or engineered material use); **PREP (Preparation)**; USES  
 (Uses)

(ketone and hydroxyl groups-contg. self-crosslinkable polymers and  
 their curable polymer compns.)

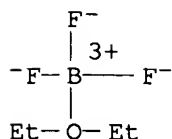
IT **109-63-7**, Boron trifluoride-ethyl ether complex

RL: CAT (Catalyst use); USES (Uses)

(cationic polymn. catalyst; ketone and hydroxyl groups-contg.  
 self-crosslinkable polymers and their curable polymer compns.)

RN 109-63-7 HCAPLUS

CN Boron, trifluoro[1,1'-oxybis[ethane]]-, (T-4)- (9CI) (CA INDEX NAME)

IT **191112-72-8P 191112-76-2P 191112-77-3P****191112-78-4P**

RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
 PRP (Properties); TEM (Technical or engineered material use); **PREP**  
**(Preparation)**; USES (Uses)

(ketone and hydroxyl groups-contg. self-crosslinkable polymers and  
 their curable polymer compns.)

RN 191112-72-8 HCAPLUS

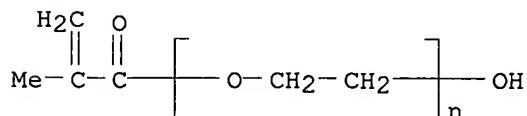
CN 3-Buten-2-one, polymer with .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-  
 hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 25736-86-1

CMF (C2 H4 O)<sub>n</sub> C4 H6 O2

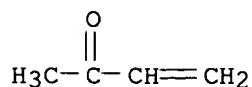
CCI PMS



CM 2

CRN 78-94-4

CMF C4 H6 O



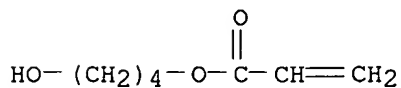
RN 191112-76-2 HCAPLUS

CN 2-Propenoic acid, 4-hydroxybutyl ester, polymer with 3-buten-2-one (9CI)  
(CA INDEX NAME)

CM 1

CRN 2478-10-6

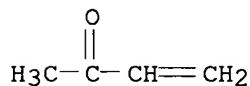
CMF C7 H12 O3



CM 2

CRN 78-94-4

CMF C4 H6 O



RN 191112-77-3 HCAPLUS

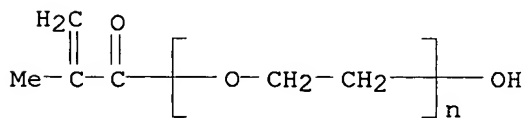
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 3-buten-2-one and  
.alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 25736-86-1

CMF (C2 H4 O)<sub>n</sub> C4 H6 O2

CCI PMS

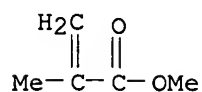


CM 2

CRN 80-62-6

CMF C5 H8 O2

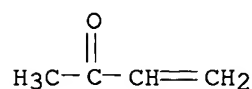




CM 3

CRN 78-94-4

CMF C4 H6 O



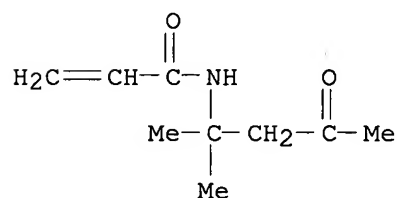
RN 191112-78-4 HCAPLUS

CN 2-Propenamide, N-(1,1-dimethyl-3-oxobutyl)-, polymer with 3-buten-2-one  
(9CI) (CA INDEX NAME)

CM 1

CRN 2873-97-4

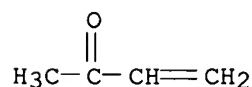
CMF C9 H15 N O2



CM 2

CRN 78-94-4

CMF C4 H6 O



IT 191112-79-5P 191112-80-8P 191112-81-9P

RL: IMF (Industrial manufacture); PRP (Properties); TEM  
(Technical or engineered material use); PREP (Preparation); USES  
(Uses)

(ketone and hydroxyl groups-contg. self-crosslinkable polymers and  
their curable polymer compns.)

RN 191112-79-5 HCAPLUS

CN 2-Propenoic acid, 4-hydroxybutyl ester, polymer with 3-buten-2-one and  
.alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-

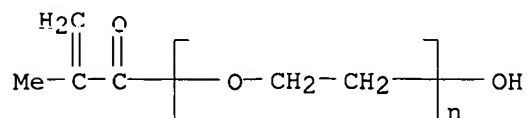
ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 25736-86-1

CMF (C2 H4 O)<sub>n</sub> C4 H6 O2

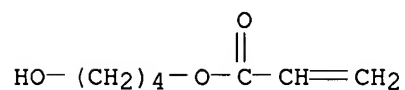
CCI PMS



CM 2

CRN 2478-10-6

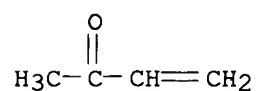
CMF C7 H12 O3



CM 3

CRN 78-94-4

CMF C4 H6 O



RN 191112-80-8 HCAPLUS

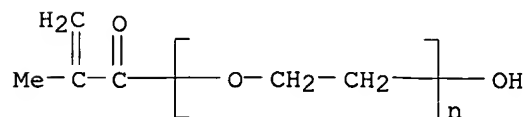
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 3-buten-2-one, N-(1,1-dimethyl-3-oxobutyl)-2-propenamide and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 25736-86-1

CMF (C2 H4 O)<sub>n</sub> C4 H6 O2

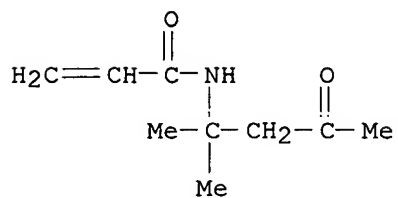
CCI PMS



CM 2

CRN 2873-97-4

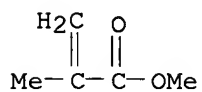
CMF C9 H15 N O2



CM 3

CRN 80-62-6

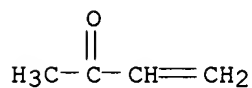
CMF C5 H8 O2



CM 4

CRN 78-94-4

CMF C4 H6 O



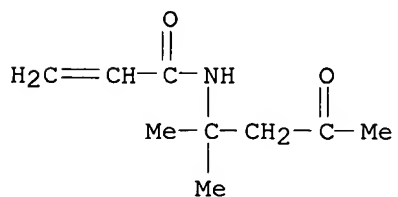
RN 191112-81-9 HCAPLUS

CN 2-Propenoic acid, 4-hydroxybutyl ester, polymer with 3-buten-2-one and N-(1,1-dimethyl-3-oxobutyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 2873-97-4

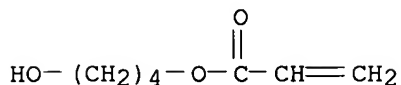
CMF C9 H15 N O2



CM 2

CRN 2478-10-6

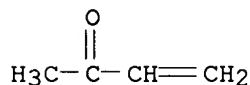
CMF C7 H12 O3



CM 3

CRN 78-94-4

CMF C4 H6 O



L46 ANSWER 24 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:439884 HCAPLUS

DN 127:51631

TI Curable polymer **compositions** from primary hydroxyl group-containing compounds and ketone group-containing polymers

IN Tanaka, Hozumi

PA Toyo Ink Mfg. Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09143262	A2	19970603	JP 1995-300851	19951120
	US 5900462	A	19990504	US 1996-748616	19961113
PRAI	JP 1995-300851		19951120		
	JP 1995-300852		19951120		

AB Title compns. are composed of (A) primary OH group-contg. compds. and (B) ketone group-contg. polymers having 2 adjacent C atoms (wherein .gtoreq.1 H atom binds to the .gtoreq.1 C atom). The compns. are cured by dehydration reaction of primary OH group and ketone group, show good **storage** stability and usability in both org. solvents and aq. solvents, and are useful for coatings, inks, adhesives, etc. Thus, a **compn.** contg. a primary OH group-contg. polymer [prepd. by polymn. of PM-90G (polyethylene glycol monomethacrylate); no.-av. mol. wt. (Mn) 25,000] 14.0, a ketone group-contg. polymer (prepd. by polymn. of Me vinyl ketone; Mn = 23,000) 14.0, and p-MeC6H4SO3H 0.4 g, was applied on a glass plate, dried, and cured at 120.degree. for 30 min to give a film with good curing state.

IC ICM C08G067-00

ICS C08F299-00

CC 37-6 (**Plastics** Manufacture and Processing)

ST dehydration curable polymer **compn storage** stability;  
ketone polymer hydroxy compd curable **compn**

IT **109-63-7**, Boron trifluoride-ethyl ether complex  
RL: CAT (Catalyst use); USES (Uses)  
(cationic polymn. catalyst; dehydration-curable polymer compns. from  
primary hydroxyl group-contg. compds. and ketone group-contg. polymers)

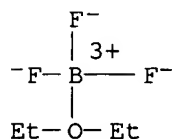
IT **9016-69-7P**, Polyethylene glycol monomethacrylate homopolymer  
**25038-87-3P**, Methyl vinyl ketone homopolymer **191112-70-6P**  
**191112-71-7P**  
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
PRP (Properties); TEM (Technical or engineered material use); **PREP**  
(**Preparation**); USES (Uses)  
(dehydration-curable polymer compns. from primary hydroxyl group-contg.  
compds. and ketone group-contg. polymers)

IT **191112-72-8P 191112-73-9P 191112-74-0P**  
**191112-75-1P**  
RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM  
(Technical or engineered material use); **PREP (Preparation)**; USES  
(Uses)  
(dehydration-curable polymer compns. from primary hydroxyl group-contg.  
compds. and ketone group-contg. polymers)

IT **109-63-7**, Boron trifluoride-ethyl ether complex  
RL: CAT (Catalyst use); USES (Uses)  
(cationic polymn. catalyst; dehydration-curable polymer compns. from  
primary hydroxyl group-contg. compds. and ketone group-contg. polymers)

RN **109-63-7 HCAPLUS**

CN Boron, trifluoro[1,1'-oxybis[ethane]]-, (T-4)- (9CI) (CA INDEX NAME)



IT **9016-69-7P**, Polyethylene glycol monomethacrylate homopolymer  
**191112-71-7P**  
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
PRP (Properties); TEM (Technical or engineered material use); **PREP**  
(**Preparation**); USES (Uses)  
(dehydration-curable polymer compns. from primary hydroxyl group-contg.  
compds. and ketone group-contg. polymers)

RN **9016-69-7 HCAPLUS**

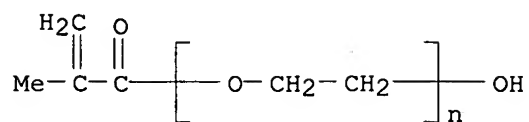
CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-  
hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 25736-86-1

CMF (C2 H4 O)n C4 H6 O2

CCI PMS



RN 191112-71-7 HCAPLUS

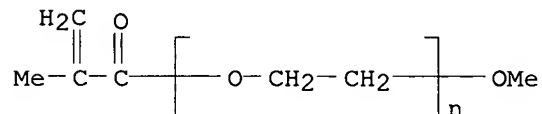
CN 3-Buten-2-one, polymer with .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

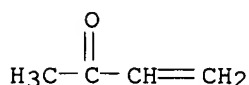
CCI PMS



CM 2

CRN 78-94-4

CMF C4 H6 O



IT 191112-72-8P 191112-73-9P 191112-74-0P

RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(dehydration-curable polymer compns. from primary hydroxyl group-contg. compds. and ketone group-contg. polymers)

RN 191112-72-8 HCAPLUS

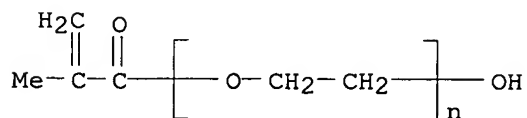
CN 3-Buten-2-one, polymer with .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 25736-86-1

CMF (C2 H4 O)<sub>n</sub> C4 H6 O2

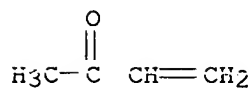
CCI PMS



CM 2

CRN 78-94-4

CMF C4 H6 O



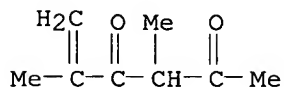
RN 191112-73-9 HCAPLUS

CN 5-Hexene-2,4-dione, 3,5-dimethyl-, polymer with 3-buten-2-one and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 191112-69-3

CMF C8 H12 O2

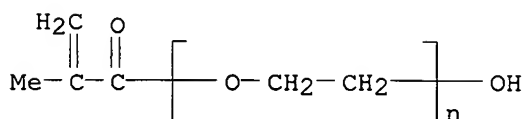


CM 2

CRN 25736-86-1

CMF (C2 H4 O)<sub>n</sub> C4 H6 O2

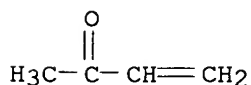
CCI PMS



CM 3

CRN 78-94-4

CMF C4 H6 O



RN 191112-74-0 HCAPLUS

CN 3-Buten-2-one, polymer with .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and .alpha.-(2-methyl-1-oxo-2-propenyl)-

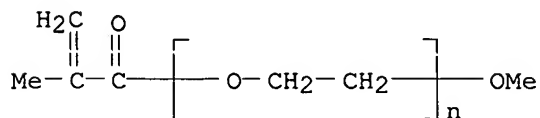
.omega.-methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

CCI PMS

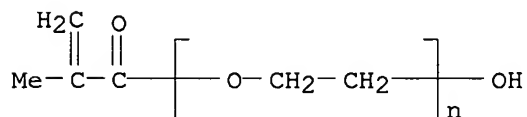


CM 2

CRN 25736-86-1

CMF (C2 H4 O)<sub>n</sub> C4 H6 O2

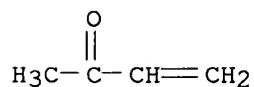
CCI PMS



CM 3

CRN 78-94-4

CMF C4 H6 O



L46 ANSWER 25 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:377385 HCAPLUS

DN 127:18092

TI Photo- or heat-polymerizable ethylenic compound **compositions**  
containing combination of pyridinium salt and borate anion

IN Kamata, Hirotoshi; Watanabe, Takeo; Sugita, Shuichi

PA Showa Denko K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

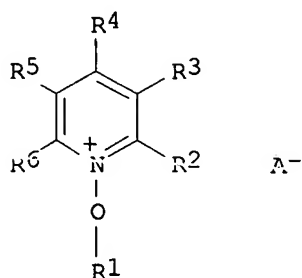
LA Japanese

FAN.CNT 1

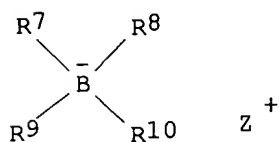
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09100306	A2	19970415	JP 1995-258993	19951005
PRAI	JP 1995-258993		19951005		



OS MARPAT 127:18092  
GI



I



II

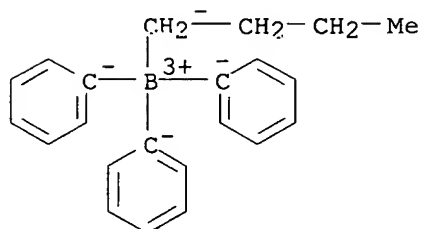
- AB A **compn.** having improved **storage** stability and promptness of polymn. upon irradi. or heating comprises ethylenic compds. and a polymn. initiating **system** including pyridinium I [R1 = (un)substituted alkyl; R2-6 = H, Cl, CN, (un)substituted alkyl, (un)substituted aryl, heterocycle; A- = anion], borate II [Z+ = ammonium, pyridinium, quinolinium, phosphonium, metal cation; R7-10 = (un)substituted alkyl, (un)substituted aryl, (un)substituted aralkyl, (un)substituted alkenyl, (un)substituted alkynyl, silyl, heterocycle, halogen], and optionally a cationic dye.
- IC ICM C08F004-52  
ICS C08F002-46
- CC 35-3 (Chemistry of Synthetic High **Polymers**)
- IT **120307-06-4**, Tetrabutylammonium n-butyltriphenylborate  
**141714-54-7** 143084-46-2 **189947-80-6**  
**189947-81-7** 189947-82-8 **189947-84-0**  
**189947-85-1** **189947-86-2** **189947-87-3**  
**189947-88-4** **189947-89-5**  
RL: CAT (Catalyst use); USES (Uses)  
(photo- or heat-polymerizable ethylenic compd. compns. contg. combination of pyridinium salt and borate)
- IT **110412-14-1P**, Trimethylolpropane triacrylate-ethylene glycol diacrylate copolymer  
RL: **IMF (Industrial manufacture); PREP (Preparation)**  
(photo- or heat-polymerizable ethylenic compd. compns. contg. combination of pyridinium salt and borate anion)
- IT **120307-06-4**, Tetrabutylammonium n-butyltriphenylborate  
**141714-54-7** **189947-80-6** **189947-81-7**  
**189947-84-0** **189947-85-1** **189947-86-2**  
**189947-87-3** **189947-88-4** **189947-89-5**  
RL: CAT (Catalyst use); USES (Uses)  
(photo- or heat-polymerizable ethylenic compd. compns. contg. combination of pyridinium salt and borate)
- RN 120307-06-4 HCAPLUS
- CN 1-Butanaminium, N,N,N-tributyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47252-39-1

CMF C22 H24 B

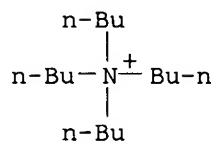
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



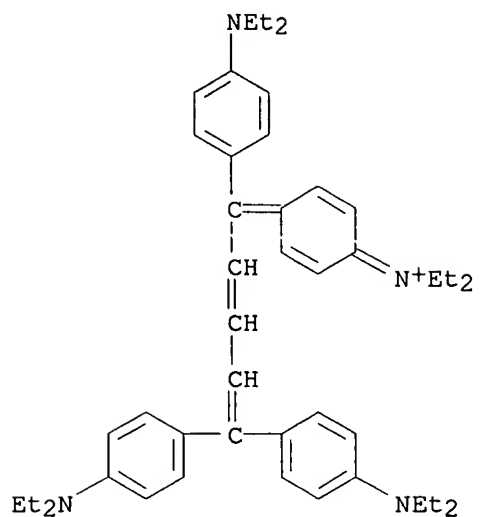
RN 141714-54-7 HCAPLUS

CN Ethanaminium, N-ethyl-N-[4-[1,5,5-tris[4-(diethylamino)phenyl]-2,4-pentadienylylidene]-2,5-cyclohexadien-1-ylidene]-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 96233-23-7

CMF C45 H59 N4

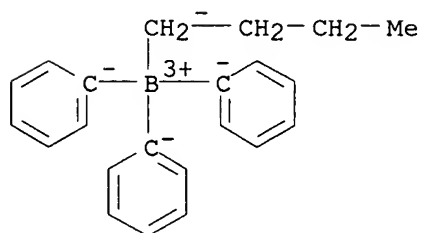


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



RN 189947-80-6 HCAPLUS

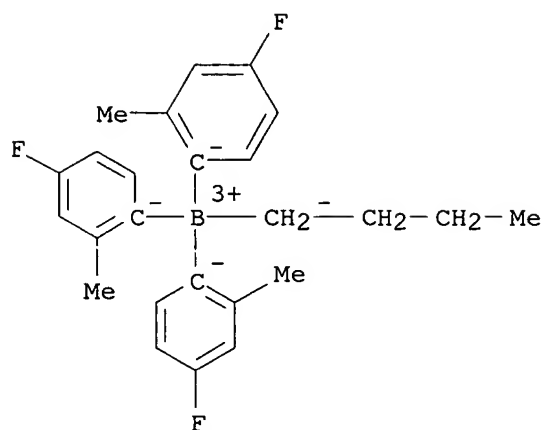
CN 1-Butanaminium, N,N,N-tributyl-, (T-4)-butyltris(4-fluoro-2-methylphenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 189947-79-3

CMF C25 H27 B F3

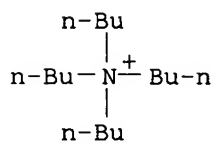
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



RN 189947-81-7 HCAPLUS

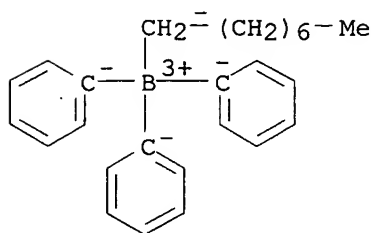
CN 1-Butanaminiun, N,N,N-tributyl-, (T-4)-octyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 137808-40-3

CMF C26 H32 B

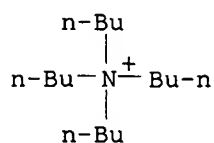
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



RN 189947-84-0 HCAPLUS

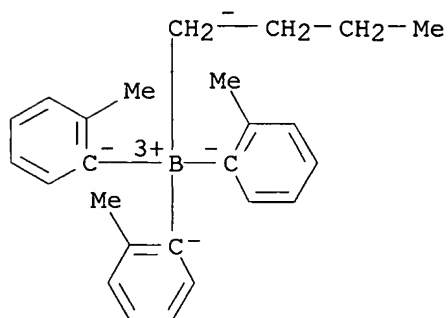
CN 1-Butanaminium, N,N,N-tributyl-, (T-4)-butyltris(2-methylphenyl)borate(1-)  
(9CI) (CA INDEX NAME)

CM 1

CRN 189947-83-9

CMF C25 H30 B

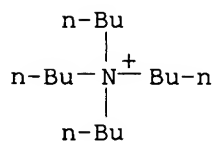
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



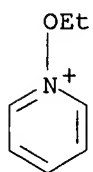
RN 189947-85-1 HCAPLUS

CN Pyridinium, 1-ethoxy-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 66816-42-0

CMF C7 H10 N O

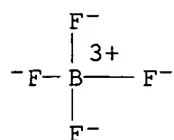


CM 2

CRN 14874-70-5

CMF B F4

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RN 189947-86-2 HCAPLUS

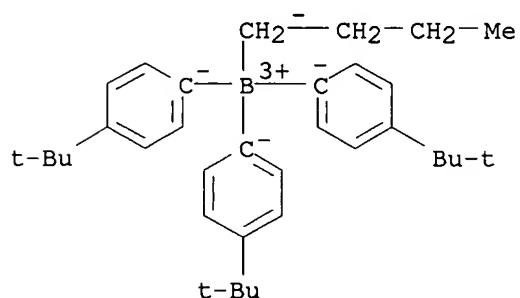
1-Butanaminium, N,N,N-tributyl-, (T-4)-butyltris[4-(1,1-dimethylethyl)phenyl]borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 128900-96-9

CMF C34 H48 B

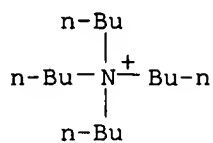
CCI	CCS
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CM 2

CRN 10549-76-5

CMF C16 H36 N



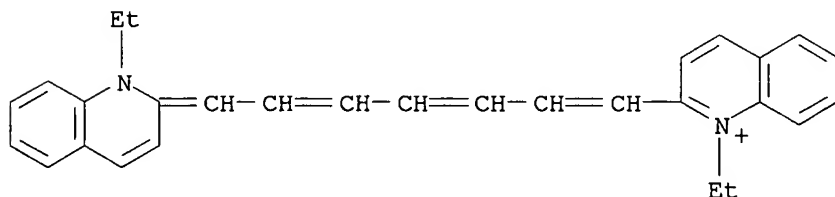
RN 189947-87-3 HCAPLUS

CN Quinolinium, 1-ethyl-2-[7-(1-ethyl-2(1H)-quinolinylidene)-1,3,5-heptatrienyl]-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 37069-61-7

CMF C29 H29 N2

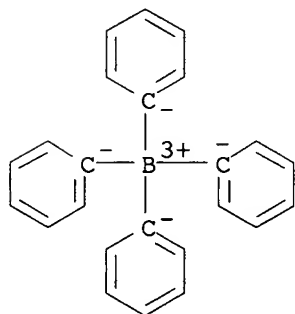


CM 2

CRN 4358-26-3

CMF C24 H20 B

CCI CCS



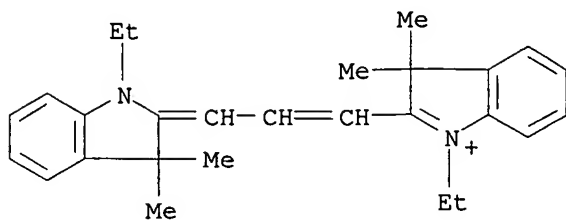
RN 189947-88-4 HCAPLUS

CN 3H-Indolium, 1-ethyl-2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 38912-20-8

CMF C27 H33 N2

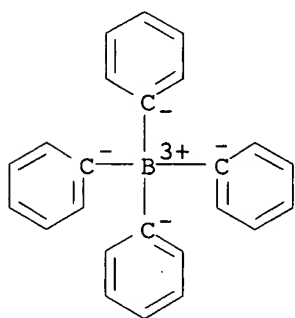


CM 2

CRN 4358-26-3

CMF C24 H20 B

CCI CCS



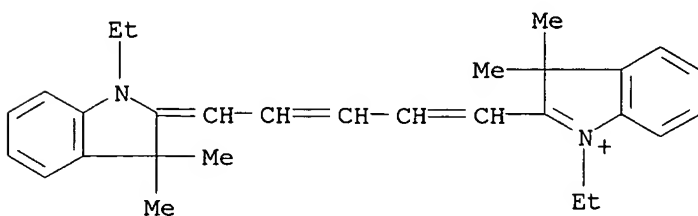
RN 189947-89-5 HCAPLUS

CN 3H-Indolium, 1-ethyl-2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 52754-39-9

CMF C29 H35 N2



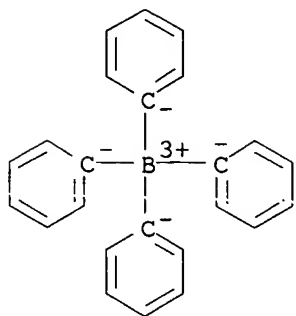
CM 2

CRN 4358-26-3

CMF C24 H20 B



CCI CCS



IT **110412-14-1P**, Trimethylolpropane triacrylate-ethylene glycol diacrylate copolymer

RL: **IMF (Industrial manufacture); PREP (Preparation)**  
(photo- or heat-polymerizable ethylenic compd. compns. contg. combination of pyridinium salt and borate anion)

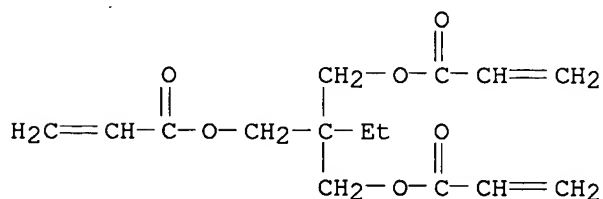
RN 110412-14-1 HCAPLUS

CN 2-Propenoic acid, 1,2-ethanediyl ester, polymer with 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 15625-89-5

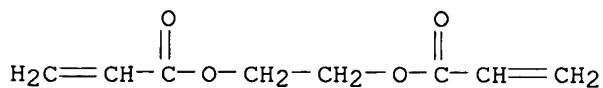
CMF C15 H20 O6



CM 2

CRN 2274-11-5

CMF C8 H10 O4



L46 ANSWER 26 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:276294 HCAPLUS

DN 126:252194

TI Initiator system and adhesive composition made therewith

IN Deviny, E. John  
 PA Minnesota Mining and Mfg. Co., USA  
 SO PCT Int. Appl., 41 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9707171	A1	19970227	WO 1996-US10341	19960613
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	AU 9661777	A1	19970312	AU 1996-61777	19960613
	EP 843708	A1	19980527	EP 1996-919431	19960613
	EP 843708	B1	20000802		
	R: CH, DE, DK, ES, FR, GB, IT, LI, NL				
	CN 1192769	A	19980909	CN 1996-196178	19960613
	CN 1089104	B	20020814		
	BR 9609934	A	19990608	BR 1996-9934	19960613
	JP 11512123	T2	19991019	JP 1996-509256	19960613
	US 5872197	A	19990216	US 1997-880317	19970623
	US 5990036	A	19991123	US 1997-947729	19971007
PRAI	US 1995-515187	A	19950811		
	WO 1996-US10341	W	19960613		
	US 1996-715997	B1	19960919		
	US 1997-789411	B1	19970129		
AB	Systems for initiating the polymn. of acrylic monomers comprise (1) organoborane amine complexes and (2) bi-reactive <b>decomplexers</b> preferably comprising .gtoreq.1 free-radically polymerizable group and .gtoreq.1 amine-reactive group in the same mol. The <b>decomplexer</b> is capable of forming a covalent bond with both the acrylic monomers and amine complex, resulting in a reduced level of mobile constituents. Furthermore, when the organoborane amine complex of the initiator system comprises a polyamine compd., polymd. acrylic compns. having improved solvent resistance are advantageously provided. Thus, an adhesive compn. was prepd. from a mixt. of MMA, Bu acrylate, Et acrylate-Me methacrylate copolymer, reaction product ( <b>decomplexer</b> ) of IPDI and hydroxyethyl acrylate, and reaction product (initiator) of triethylborane and Jeffamine T403.				
IC	ICM C09J004-00				
	ICS C08F004-52				
CC	38-3 ( <b>Plastics</b> Fabrication and Uses)				
ST	acrylic polymer adhesive compn <b>decomplexer</b> ; IPDI hydroxyethyl acrylate adhesive <b>decomplexer</b> ; polymn initiator organoborane amine complex; ethylborane amine complex polymn initiator				
IT	584-84-9DP, reaction products with acrylates 91727-75-2DP, Mondur TDS, reaction products with acrylates				
	RL: MOA (Modifier or additive use); SPN ( <b>Synthetic preparation</b> ); PREP ( <b>Preparation</b> ); USES (Uses)				
	(Mondur TDS, <b>decomplexers</b> ; initiator system and adhesive compn. made therewith)				
IT	818-61-1DP, reaction products with isocyanates 868-77-9DP, reaction				

products with isocyanates 4098-71-9DP, IPDI, reaction products with acrylates 51309-28-5DP, Hydroxybutyl acrylate, reaction products with isocyanates 101484-78-0DP, Tone M 100, reaction products with isocyanates 126700-87-6DP, Tone M 0200, reaction products with isocyanates

RL: MOA (Modifier or additive use); **SPN (Synthetic preparation);**

**PREP (Preparation);** USES (Uses)

(decomplexers; initiator system and adhesive compn. made therewith)

IT **9010-88-2**, Ethyl acrylate-methyl methacrylate copolymer

**25852-37-3**, Butyl acrylate-methyl methacrylate copolymer

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(initiator system and adhesive compn. made therewith)

IT **97-94-9DP**, Triethylborane, complexed with amines 13048-33-4DP,

1,6-Hexanediol diacrylate, diamine adducts, complexed with organoboranes

39423-51-3DP, Jeffamine T 403, complexed with organoboranes

65605-36-9DP, Jeffamine ED 600, complexed with organoboranes

188674-26-2DP, DCA 221, acrylate adducts, complexed with organoboranes

RL: CAT (Catalyst use); **SPN (Synthetic preparation); PREP**

**(Preparation);** USES (Uses)

(initiators; initiator system and adhesive compn. made therewith)

IT **9010-88-2**, Ethyl acrylate-methyl methacrylate copolymer

**25852-37-3**, Butyl acrylate-methyl methacrylate copolymer

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(initiator system and adhesive compn. made therewith)

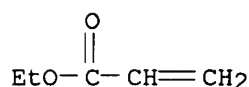
RN 9010-88-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5

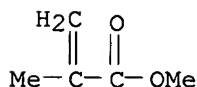
CMF C5 H8 O2



CM 2

CRN 80-62-6

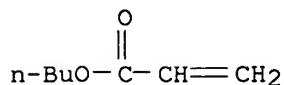
CMF C5 H8 O2



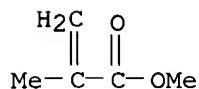
RN 25852-37-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate (9CI) (CA INDEX NAME)

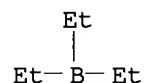
CM 1

CRN 141-32-2  
CMF C7 H12 O2

CM 2

CRN 80-62-6  
CMF C5 H8 O2

IT 97-94-9DP, Triethylborane, complexed with amines  
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP  
 (Preparation); USES (Uses)  
 (initiators; initiator system and adhesive compn. made therewith)  
 RN 97-94-9 HCAPLUS  
 CN Borane, triethyl- (8CI, 9CI) (CA INDEX NAME)



L46 ANSWER 27 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1997:251106 HCAPLUS  
 DN 126:238853  
 TI Branched polymers with polyolefin arms  
 IN Janssen, Koen Jan Gerarda; Rademakers, Gerardus Arnoldus; Renkema, Jacob;  
 Verweij, Petronella Danielle  
 PA Dsm N.V., Neth.; Janssen, Koen Jan Gerarda; Rademakers, Gerardus Arnoldus;  
 Renkema, Jacob; Verweij, Petronella Danielle  
 SO PCT Int. Appl., 85 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9706201	A1	19970220	WO 1996-NL281	19960708
	W:			AL, AU, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KP, KR,	
				LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR,	
				TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM	
	RW:			KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,	
				IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,	

MR, NE, SN, TD, TG

US 6084030	A	20000704	US 1995-511402	19950804
CA 2228421	AA	19970220	CA 1996-2228421	19960708
AU 9663204	A1	19970305	AU 1996-63204	19960708
EP 842213	A1	19980520	EP 1996-922284	19960708
EP 842213	B1	20011004		

R: DE, FR, GB, IT, NL

BR 9610057	A	19990615	BR 1996-10057	19960708
JP 11510840	T2	19990921	JP 1996-508336	19960708
CN 1198757	A	19981111	CN 1996-197344	19960807

PRAI US 1995-511402 A 19950804  
WO 1996-NL281 W 19960708

AB A highly branched polymer in the form of a comb, star, nanogel and structural combinations is prepd. by attaching plurality of polyolefin arms formed of polymers of 1-alkenes (e.g., ethylene-propylene copolymer, polyethylene, polypropylene, or its functional group-terminated product) to a backbone having repeating units contg. aliph. groups, arom. groups, and/or heteroatom-contg. groups [e.g., polymethylhydrosiloxane, poly(trichlorosilane), 9-borabicyclo[3.3.1]nonane, poly(acryloyl chloride), poly(methacryloyl chloride), dendrimer, Tolonate HDT].

IC ICM C08G081-02  
ICS C08F290-04

CC 35-8 (Chemistry of Synthetic High Polymers)

IT Polyvinyl acetals  
RL: **IMF (Industrial manufacture); PREP (Preparation)**  
(formals, reaction products with polyolefins; branched polymers with polyolefin arms)

IT Polyolefins  
RL: **IMF (Industrial manufacture); PREP (Preparation)**  
(reaction products with polyfunctional backbone polymer; branched polymers with polyolefin arms)

IT Dendritic polymers  
RL: **IMF (Industrial manufacture); PREP (Preparation)**  
(reaction products with polyolefins; branched polymers with polyolefin arms)

IT 108-31-6DP, Maleic anhydride, reaction products with polyolefins then with polyfunctional backbone polymer **280-64-8DP**, 9-Borabicyclo[3.3.1]nonane, reaction products with polyolefins 2094-99-7DP, reaction products with polyolefins then with polyfunctional backbone polymer **7338-27-4DP**, Methyl itaconate, reaction products with tris(aminoethyl)benzene then with polyolefins 9002-88-4DP, Polyethylene, reaction products with polyfunctional backbone polymer 9003-07-0DP, Polypropylene, reaction products with polyfunctional backbone polymer 9004-73-3DP, Polymethylhydrosiloxane, reaction products with polyolefins 9010-79-1DP, Ethylene-propylene copolymer, reaction products with polyfunctional backbone polymer 10025-78-2DP, Trichlorosilane, reaction products with polyolefins **25189-84-8DP**, Poly(acryloyl chloride), reaction products with polyolefins **26937-45-1DP**, Poly(methacryloyl chloride), reaction products with polyolefins 77372-56-6DP, 1,3,5-Tris(aminomethyl) benzene, reaction products with Me itaconate then with polyolefins 118550-50-8DP, Tolonate HDT, reaction products with polyolefins  
RL: **IMF (Industrial manufacture); PREP (Preparation)**  
(branched polymers with polyolefin arms)

IT **280-64-8DP**, 9-Borabicyclo[3.3.1]nonane, reaction products with polyolefins **7338-27-4DP**, Methyl itaconate, reaction products with tris(aminoethyl)benzene then with polyolefins **25189-84-8DP**, Poly(acryloyl chloride), reaction products with polyolefins

**26937-45-1DP**, Poly(methacryloyl chloride), reaction products with polyolefins

RL: **IMF (Industrial manufacture); PREP (Preparation)**  
(branched polymers with polyolefin arms)

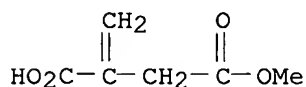
RN 280-64-8 HCAPLUS

CN 9-Borabicyclo[3.3.1]nonane (8CI, 9CI) (CA INDEX NAME)



RN 7338-27-4 HCAPLUS

CN Butanedioic acid, methylene-, 4-methyl ester (9CI) (CA INDEX NAME)



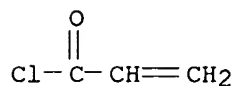
RN 25189-84-8 HCAPLUS

CN 2-Propenoyl chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 814-68-6

CMF C3 H3 Cl O



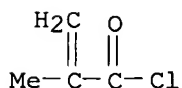
RN 26937-45-1 HCAPLUS

CN 2-Propenoyl chloride, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 920-46-7

CMF C4 H5 Cl O



L46 ANSWER 28 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:140564 HCAPLUS

DN 126:145221

TI Photocurable composite material **compositions** with good **storage** stability for vacuum- or pressure-forming, and their

molding process

IN Yamamoto, Tomio; Ootani, Kazuo; Yoshida, Haruo; Ishii, Yoshifumi; Yamada, Hiroshi

PA Showa Highpolymer, Japan; Showa Denko Kk

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08323929	A2	19961210	JP 1995-160030	19950601
PRAI	JP 1995-160030		19950601		

OS MARPAT 126:145221

AB Title compns. are obtained by sandwiching (A) polymer compns. contg. (a) unsatd. polyesters and/or vinyl ester polymers, (b) fibrous reinforcers or their mixts. with fillers, and (c) photopolymn. initiator compns. (which are active at wavelength 390-1200 nm) between (B) 2 heat-stretchable polymer films (one or both of which shows transparency at .gtoreq.390 nm). Thus, a **compn.** contg. an unsatd. polyester (prepd. from propylene glycol 100, phthalic anhydride 50, and maleic anhydride 50 mol; contg. 35% styrene) 100, styrene 10, Softon 1200 100, MgO 1, 1,1,5,5-tetrakis(p-diethylaminophenyl)-2,4-pentadienyl triphenylbutylborate 0.1, tetrabutylammonium triphenylbutylborate 0.5, 2,2'-bis(o-chlorophenyl)-4,5,4',5'-tetraphenyl-1,2'-biimidazole 0.5, 2-mercaptobenzothiazole 0.5, RC-843 Gy 0.2, and glass chopped strand 71 parts was sandwiched between poly(vinyl alc.) films and roll pressed to give a fiber-reinforced sheet, which showed good **storage** stability and gave a photocured molded product with good appearance and mech. properties.

IC ICM B32B027-04

ICS B29C070-06; B32B027-36; C08F299-04; C08L067-06; B29K067-00; B29K105-08

CC 38-3 (Plastics Fabrication and Uses)

IT Glass fibers, uses

RL: MOA (Modifier or additive use); USES (Uses)  
(chopped strand, reinforcers; photocurable composite material compns. with good **storage** stability for vacuum- or pressure-forming)

IT Reinforced plastics

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(fiber-reinforced, vacuum forming or pressure forming; photocurable composite material compns. with good **storage** stability for vacuum- or pressure-forming)

IT Polymerization catalysts

(photopolymn.; photocurable composite material compns. with good **storage** stability for vacuum- or pressure-forming)

IT Polyesters, uses

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(unsatd.; photocurable composite material compns. with good **storage** stability for vacuum- or pressure-forming)

IT 471-34-1, Softon 1200, uses

RL: MOA (Modifier or additive use); USES (Uses)  
(filler; photocurable composite material compns. with good **storage** stability for vacuum- or pressure-forming)

IT 9002-89-5, Poly(vinyl alcohol)

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(film; photocurable composite material compns. with good **storage** stability for vacuum- or pressure-forming)

IT 26182-24-1P, Maleic anhydride-phthalic anhydride-propylene glycol-styrene copolymer **81871-88-7P** 171408-69-8P, Dimethyl terephthalate-fumaric acid-neopentyl glycol-styrene copolymer  
 RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM  
 (Technical or engineered material use); **PREP (Preparation)**; USES  
 (Uses)

(photocurable composite material compns. with good **storage** stability for vacuum- or pressure-forming)

IT 149-30-4, 2-Mercaptobenzothiazole 1707-68-2 **120307-06-4**  
**141714-54-7**  
 RL: CAT (Catalyst use); USES (Uses)

(photopolymn. initiator; photocurable composite material compns. with good **storage** stability for vacuum- or pressure-forming)

IT **81871-88-7P**  
 RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM  
 (Technical or engineered material use); **PREP (Preparation)**; USES  
 (Uses)

(photocurable composite material compns. with good **storage** stability for vacuum- or pressure-forming)

RN 81871-88-7 HCAPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane, 2-methyl-2-propenoate, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8

$\text{H}_2\text{C}=\text{CH}-\text{Ph}$

CM 2

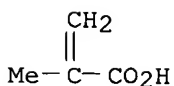
CRN 61970-25-0

CMF (C15 H16 O2 . C3 H5 Cl O)x . x C4 H6 O2

CM 3

CRN 79-41-4

CMF C4 H6 O2



CM 4

CRN 25068-38-6

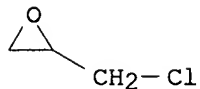
CMF (C15 H16 O2 . C3 H5 Cl O)x

CCI PMS



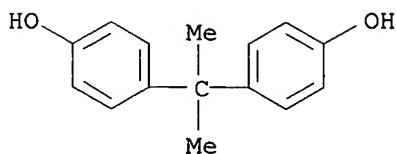
CM 5

CRN 106-89-8  
CMF C3 H5 Cl O



CM 6

CRN 80-05-7  
CMF C15 H16 O2



IT 120307-06-4 141714-54-7

RL: CAT (Catalyst use); USES (Uses)

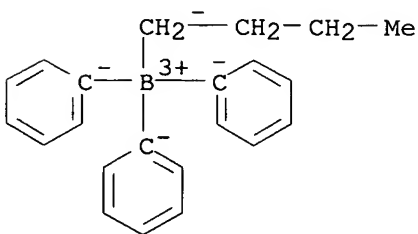
(photopolymerization initiator; photocurable composite material compns. with good **storage** stability for vacuum- or pressure-forming)

RN 120307-06-4 HCAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

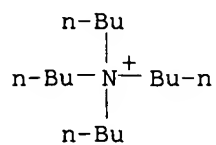
CM 1

CRN 47252-39-1  
CMF C22 H24 B  
CCI CCS



CM 2

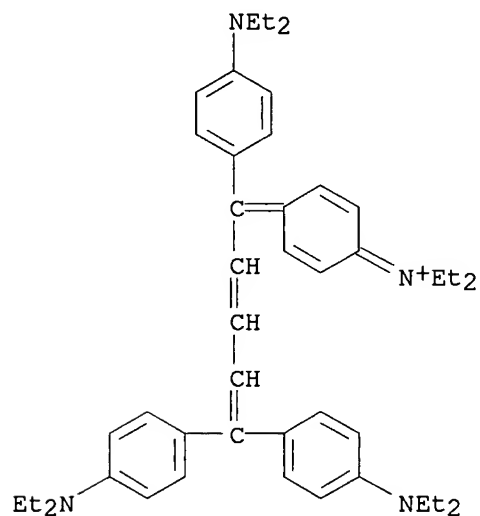
CRN 10549-76-5  
CMF C16 H36 N



RN 141714-54-7 HCAPLUS  
 CN Ethanaminium, N-ethyl-N-[4-[1,5,5-tris[4-(diethylamino)phenyl]-2,4-pentadienylidene]-2,5-cyclohexadien-1-ylidene]-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

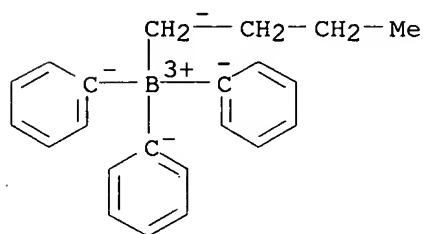
CM 1

CRN 96233-23-7  
 CMF C45 H59 N4



CM 2

CRN 47252-39-1  
 CMF C22 H24 B  
 CCI CCS



L46 ANSWER 29 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:110481 HCAPLUS

DN 126:118866

TI Pressure-sensitive adhesive **compositions** containing epoxy-reactive acrylic resins and silanes and epoxy compounds

IN Kimura, Yoshihiro; Inoe, Hiroko

PA Nippon Synthetic Chem Ind, Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08302325	A2	19961119	JP 1995-138381	19950512
	JP 3426411	B2	20030714		
PRAI	JP 1995-138381		19950512		

AB Title compns. giving stable cohesion and adhesion strength at hot and moist condition, and good adhesion to curved surface, useful for bonding optical films, etc., contain (A) acrylic resins bearing epoxy-reactive groups, (B) silanes bearing similar groups, (C) compds. with .gtoreq.2 epoxy groups, and (D) crosslinking agents. Thus, mixing a PhMe soln. of a 95:5 Bu acrylate-acrylic acid copolymer 100 (as solids) with GF 20 (3-triethoxysilylpropylsuccinic anhydride) 1.0, glycerol diglycidyl ether 1.0, and Coronate L (isocyanate) 1.0 part gave a **compn.**, which was applied on a glass plate, dried at 100.degree. for 2 min, laminated with a poly(vinyl alc.) polarizer film, and pressed to give a test piece having the claimed properties.

IC ICM C09J163-00

ICS C08G059-40; C09J133-00; C09J175-04

CC 38-3 (**Plastics** Fabrication and Uses)

Section cross-reference(s): 73

ST pressure sensitive adhesive lamination film; epoxy reactive acrylic resin adhesive; silane epoxy reactive lamination adhesive; butyl acrylate copolymer lamination adhesive; glycerol diglycidyl ether lamination adhesive; succinic anhydride silane lamination adhesive; isocyanate crosslinking agent lamination adhesive; **storage** stable lamination adhesive; polarizer film lamination adhesive

IT Epoxy resins, uses

RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM(Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(acrylic; heat- and moisture-resistant pressure-sensitive adhesive compns. for bonding polarizer films)

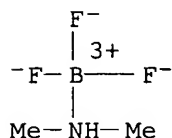
IT Silanes

RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM(Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(alkoxy, crosslinkers; in heat- and moisture-resistant pressure-sensitive adhesive compns. for bonding polarizer films)

IT 56-93-9, Benzyltrimethylammonium chloride 90-72-2, 2,4,6-Tris(dimethylaminomethyl)phenol 100-97-0, Hexamethylenetetramine, uses 102-82-9, Tributylamine 103-83-3, Benzyl dimethylamine 105-83-9, Methyliminobispropylamine 110-18-9 110-86-1, Pyridine, uses 110-95-2, N,N,N',N'-Tetramethyltrimethylenediamine 280-57-9, Triethylenediamine 693-98-1, 2-Methylimidazole **811-59-6**, Boron trifluoride complex with dimethylamine 23996-55-6, 1-Cyanoethyl-2-methylimidazole 28631-79-0, Aminoethylpiperazine

RL: CAT (Catalyst use); USES (Uses)  
 (crosslinking catalysts; for heat- and moisture-resistant  
 pressure-sensitive adhesive compns. for bonding polarizer films)  
 IT 1116-00-3P, Triethyleneamine  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM  
 (Technical or engineered material use); PREP (Preparation); USES  
 (Uses)  
 (crosslinking catalysts; for heat- and moisture-resistant  
 pressure-sensitive adhesive compns. for bonding polarizer films)  
 IT 185987-43-3P 186104-66-5P, Acrylic acid-butyl  
 acrylate-Coronate L-glycerol diglycidyl ether-3-  
 triethoxysilylpropylsuccinic anhydride copolymer 186104-67-6P  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM  
 (Technical or engineered material use); PREP (Preparation); USES  
 (Uses)  
 (heat- and moisture-resistant pressure-sensitive adhesive compns. for  
 bonding polarizer films)  
 IT 811-59-6, Boron trifluoride complex with dimethylamine  
 RL: CAT (Catalyst use); USES (Uses)  
 (crosslinking catalysts; for heat- and moisture-resistant  
 pressure-sensitive adhesive compns. for bonding polarizer films)  
 RN 811-59-6 HCAPLUS  
 CN Boron, trifluoro(N-methylmethanamine)-, (T-4)- (9CI) (CA INDEX NAME)

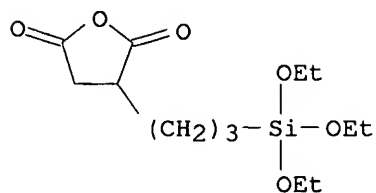


IT 185987-43-3P 186104-66-5P, Acrylic acid-butyl  
 acrylate-Coronate L-glycerol diglycidyl ether-3-  
 triethoxysilylpropylsuccinic anhydride copolymer 186104-67-6P  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM  
 (Technical or engineered material use); PREP (Preparation); USES  
 (Uses)  
 (heat- and moisture-resistant pressure-sensitive adhesive compns. for  
 bonding polarizer films)  
 RN 185987-43-3 HCAPLUS  
 CN 2-Propenoic acid, butyl ester, polymer with Coronate L,  
 dihydro-3-[3-(triethoxysilyl)propyl]-2,5-furandione, 2,2'-[1,2-  
 ethanediylbis(oxymethylene)]bis[oxirane] and 2-propenoic acid (9CI) (CA  
 INDEX NAME)

CM 1

CRN 93642-68-3

CMF C13 H24 O6 Si



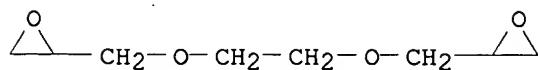
CM 2

CRN 39278-79-0  
CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

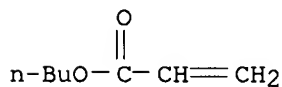
CM 3

CRN 2224-15-9  
CMF C8 H14 O4



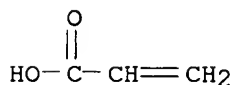
CM 4

CRN 141-32-2  
CMF C7 H12 O2



CM 5

CRN 79-10-7  
CMF C3 H4 O2

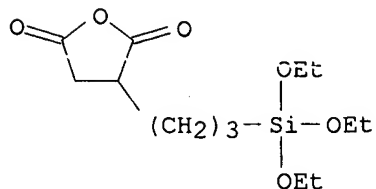


RN 186104-66-5 HCAPLUS  
CN 2-Propenoic acid, polymer with 1,3(or 2,3)-bis(oxiranylmethoxy)propanol,  
butyl 2-propenoate, Coronate L and dihydro-3-[3-(triethoxysilyl)propyl]-  
2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 93642-68-3

CMF C13 H24 O6 Si



CM 2

CRN 39278-79-0

CMF Unspecified

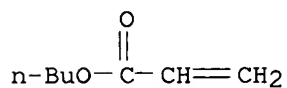
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 141-32-2

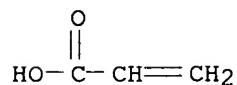
CMF C7 H12 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



CM 5

CRN 27043-36-3

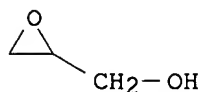
CMF C9 H16 O5

CCI IDS

CM 6

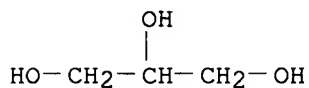
CRN 556-52-5

CMF C3 H6 O2



CM 7

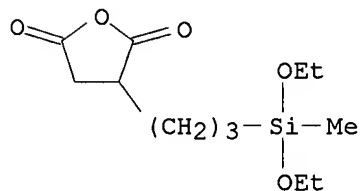
CRN 56-81-5  
CMF C3 H8 O3



RN 186104-67-6 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 1,3(or 2,3)-bis(oxiranylmethoxy)propanol, butyl 2-propenoate, Coronate L, 3-[3-(diethoxymethylsilyl)propyl]dihydro-2,5-furandione and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 169033-27-6  
CMF C12 H22 O5 Si



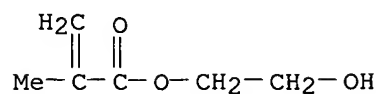
CM 2

CRN 39278-79-0  
CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

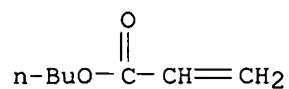
CRN 868-77-9  
CMF C6 H10 O3



CM 4

CRN 141-32-2

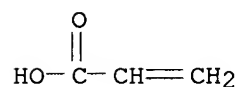
CMF C7 H12 O2



CM 5

CRN 79-10-7

CMF C3 H4 O2



CM 6

CRN 27043-36-3

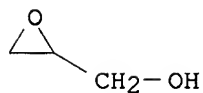
CMF C9 H16 O5

CCI IDS

CM 7

CRN 556-52-5

CMF C3 H6 O2

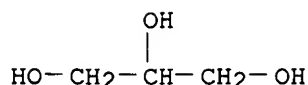


CM 8

CRN 56-81-5

CMF C3 H8 O3





L46 ANSWER 30 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:96680 HCAPLUS

DN 126:105260

TI Pressure-sensitive adhesive compositions containing carboxyl-reactive acrylic resins and carboxyl-substituted alkoxy silanes

IN Kimura, Yoshihiro; Inoe, Hiroko

PA Nippon Synthetic Chem Ind, Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08302320	A2	19961119	JP 1995-138380	19950512
	JP 3426410	B2	20030714		
PRAI	JP 1995-138380		19950512		

AB Title compns. useful for bonding substrates and optical films, showing stable cohesive and adhesive strength, i.e., prevention of peeling off, at hot and moist condition and improved adhesion strength to curved surface, contain (A) acrylic resins substituted with carboxyl-reactive groups, (B) carboxyl-substituted silanes, and (C) crosslinking agents. Thus, 100 part-solids 95:5 Bu acrylate-acrylic acid copolymer MePh soln. was mixed with GF 20 (3-triethoxysilylpropylsuccinic anhydride) 1.0, and Coronate L (isocyanate) 1.0 part to give title compn., which was applied on a glass plate, dried at 100.degree. for 2 min, laminated on a poly(vinyl alc.) polarizing film, and pressed to give a test piece showing peel off of the film from 0 to <2 mm after leaving for 60 min at 40.degree. and relative humidity (RH) 95%, further for 30 min at 105.degree., and for 30 min at 40.degree. and RH 95%.

IC ICM C09J133-00

ICS C09J133-00

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 57, 73

ST pressure sensitive adhesive optical film; carboxyl reactive acrylic resin adhesive; silane carboxyl substituted self adhesive; butyl acrylate acrylic acid copolymer; succinic anhydride silane self adhesive; isocyanate crosslinking agent self adhesive; storage stable cohesion strength adhesive; curved surface adhesion strength adhesive; polarizing film pressure sensitive adhesive; divinylbenzene crosslinking aid acrylic resin

IT 185964-61-8P, Acrylic acid-butyl acrylate-triethoxysilylpropylsuccinic anhydride-Coronate L copolymer

185964-62-9P 185964-63-0P 185964-64-1P

185964-65-2P 185964-66-3P

RL: IMF (Industrial manufacture); PRP (Properties); TEM

(Technical or engineered material use); PREP (Preparation); USES (Uses)

(acrylic resin compns. as pressure-sensitive adhesives with stable adhesion strength for optical films)

IT 56-93-9, Benzyltrimethylammonium chloride 75-23-0 90-72-2,

2,4,6-Tris(dimethylaminomethyl)phenol 100-97-0, Hexamethylenetetramine, uses 102-71-6, uses 102-82-9, Tributylamine 103-83-3, Benzyldimethylamine 105-83-9, Methylinobispropylamine 110-18-9 110-86-1, Pyridine, uses 110-95-2, N,N,N',N'-Tetramethyltrimethylenediamine 280-57-9, Triethylenediamine 693-98-1, 2-Methylimidazole 6674-22-2 23996-55-6, 1-Cyanoethyl-2-methylimidazole 28631-79-0, Aminoethylpiperazine

RL: MOA (Modifier or additive use); USES (Uses)

(in acrylic resin compns. as pressure-sensitive adhesives with stable adhesion strength for optical films)

IT 185964-61-8P, Acrylic acid-butyl acrylate-triethoxysilylpropylsuccinic anhydride-Coronate L copolymer

185964-62-9P 185964-63-0P 185964-64-1P

185964-65-2P 185964-66-3P

RL: IMF (Industrial manufacture); PRP (Properties); TEM

(Technical or engineered material use); PREP (Preparation); USES

(Uses)

(acrylic resin compns. as pressure-sensitive adhesives with stable adhesion strength for optical films)

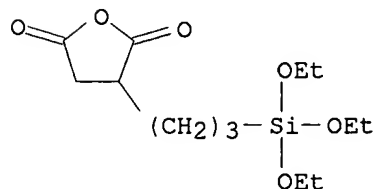
RN 185964-61-8 HCAPLUS

CN 2-Propenoic acid, polymer with butyl 2-propenoate, Coronate L and dihydro-3-[3-(triethoxysilyl)propyl]-2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 93642-68-3

CMF C13 H24 O6 Si



CM 2

CRN 39278-79-0

CMF Unspecified

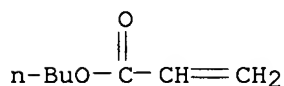
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 141-32-2

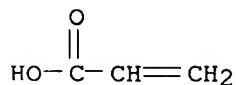
CMF C7 H12 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



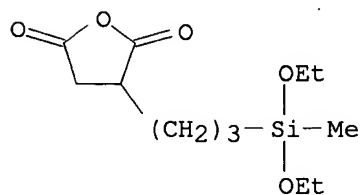
RN 185964-62-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl 2-propenoate, Coronate L, 3-[3-(diethoxymethylsilyl)propyl]dihydro-2,5-furandione and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 169033-27-6

CMF C12 H22 O5 Si



CM 2

CRN 39278-79-0

CMF Unspecified

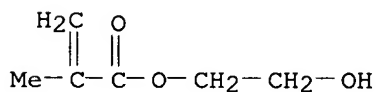
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 868-77-9

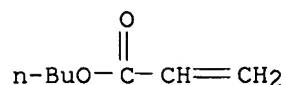
CMF C6 H10 O3



CM 4

CRN 141-32-2

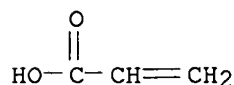
CMF C7 H12 O2



CM 5

CRN 79-10-7

CMF C3 H4 O2



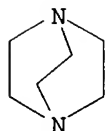
RN 185964-63-0 HCAPLUS

CN 2-Propenoic acid, polymer with butyl 2-propenoate, Coronate L and dihydro-3-[3-(triethoxysilyl)propyl]-2,5-furandione, compd. with 1,4-diazabicyclo[2.2.2]octane (9CI) (CA INDEX NAME)

CM 1

CRN 280-57-9

CMF C6 H12 N2



CM 2

CRN 185964-61-8

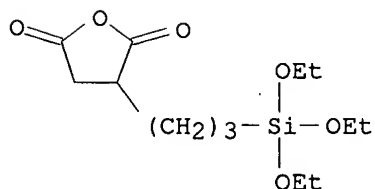
CMF (C13 H24 O6 Si . C7 H12 O2 . C3 H4 O2 . Unspecified)x

CCI PMS

CM 3

CRN 93642-68-3

CMF C13 H24 O6 Si



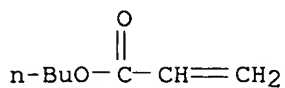
CM 4

CRN 39278-79-0  
CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

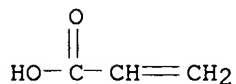
CM 5

CRN 141-32-2  
CMF C7 H12 O2



CM 6

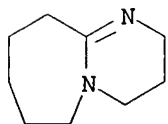
CRN 79-10-7  
CMF C3 H4 O2



RN 185964-64-1 HCAPLUS  
CN 2-Propenoic acid, polymer with butyl 2-propenoate, Coronate L and dihydro-3-[3-(triethoxysilyl)propyl]-2,5-furandione, compd. with 2,3,4,6,7,8,9,10-octahydropyrimido[1,2-a]azepine (9CI) (CA INDEX NAME)

CM 1

CRN 6674-22-2  
CMF C9 H16 N2

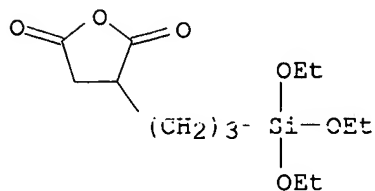


CM 2

CRN 185964-61-8  
CMF (C13 H24 O6 Si . C7 H12 O2 . C3 H4 O2 . Unspecified)x  
CCI PMS

CM 3

CRN 93642-68-3  
CMF C13 H24 O6 Si



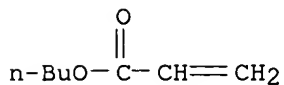
CM 4

CRN 39278-79-0  
CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

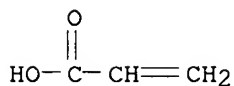
CM 5

CRN 141-32-2  
CMF C7 H12 O2



CM 6

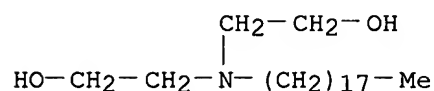
CRN 79-10-7  
CMF C3 H4 O2



RN 185964-65-2 HCAPLUS  
CN 2-Propenoic acid, polymer with butyl 2-propenoate, Coronate L and dihydro-3-[3-(triethoxysilyl)propyl]-2,5-furandione, compd. with 2,2'-(octadecylimino)bis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 10213-78-2  
CMF C22 H47 N O2



CM 2

CRN 185964-61-8

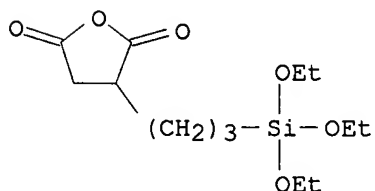
CMF (C13 H24 O6 Si . C7 H12 O2 . C3 H4 O2 . Unspecified)x

CCI PMS

CM 3

CRN 93642-68-3

CMF C13 H24 O6 Si



CM 4

CRN 39278-79-0

CMF Unspecified

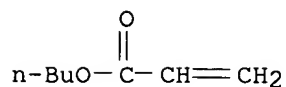
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 5

CRN 141-32-2

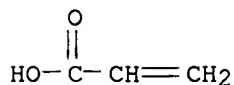
CMF C7 H12 O2



CM 6

CRN 79-10-7

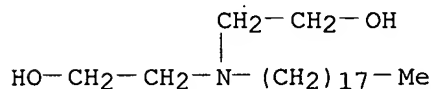
CMF C3 H4 O2



RN 185964-66-3 HCAPLUS  
 CN 2-Propenoic acid, polymer with butyl 2-propenoate, Coronate L and dihydro-3-[3-(triethoxysilyl)propyl]-2,5-furandione, compd. with 1,4-diazabicyclo[2.2.2]octane and 2,2'-(octadecylimino)bis[ethanol] (9CI) (CA INDEX NAME)

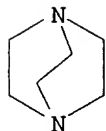
CM 1

CRN 10213-78-2  
 CMF C22 H47 N O2



CM 2

CRN 280-57-9  
 CMF C6 H12 N2

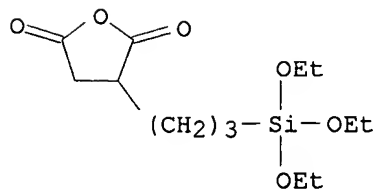


CM 3

CRN 185964-61-8  
 CMF (C13 H24 O6 Si . C7 H12 O2 . C3 H4 O2 . Unspecified)x  
 CCI PMS

CM 4

CRN 93642-68-3  
 CMF C13 H24 O6 Si





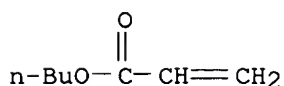
CM 5

CRN 39278-79-0  
CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

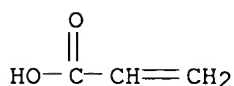
CM 6

CRN 141-32-2  
CMF C7 H12 O2



CM 7

CRN 79-10-7  
CMF C3 H4 O2

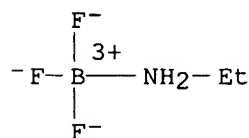


IT 75-23-0

RL: MOA (Modifier or additive use); USES (Uses)  
(in acrylic resin compns. as pressure-sensitive adhesives with stable  
adhesion strength for optical films)

RN 75-23-0 HCAPLUS

CN Boron, (ethanamine)trifluoro-, (T-4)- (9CI) (CA INDEX NAME)



L46 ANSWER 31 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1996:701180 HCAPLUS

DN 126:8756

TI Polymerization of methacrylic acid esters with the aged system of  
lanthanum versatate and p-chlorobenzenediazonium tetrafluoroborate

AU Sato, Tsuneyuki; Naruse, Motokazu; Toyosu, Kentaro; Seno, Makiko

CS Faculty Engineering, Tokushima University, Tokushima, 770, Japan

SO Macromolecular Chemistry and Physics (1996), 197(11), 3541-3554

CODEN: MCHPES; ISSN: 1022-1352

PB Huethig &amp; Wepf

DT Journal

LA English

AB The aged system of La versatate (I) and p-chlorobenzenediazonium tetrafluoroborate (II) was found to initiate effectively the radical polymn. of acrylic monomers including alkyl methacrylates, Bu acrylate, and acrylonitrile, although its initiating activity was lower than that of the non-aged system. The polymn. of Me methacrylate (III) with the aged I-II system was studied kinetically in acetone. The initial polymn. rate ( $R_p$ ) is expressed by  $R_p = k_0[\text{aged I-II}]^{0.80}[\text{III}]^{1.1}$  at 50.degree.. The overall activation energy of the polymn. is 59.0 kJ .times. mol<sup>-1</sup>. The mol. wt. of the resulting PMMA formed in the early stage increases with increasing conversion. The polymn. system involves a persistent radical showing a 4-line EPR spectrum with a g-value of 2.004. A 3-line spectrum due to the nitroxyl radical was also obsd. at lower monomer concns. The total concn. of persistent radicals correspond well to the instantaneous polymn. rate. The copolymn. of styrene (M1) and III (M2) with the aged initiator system was examd. at 50.degree. in acetone. Reactivity ratios  $r_1$  and  $r_2$  are 0.19 and 0.47, resp. The former is considerably smaller than that (0.52) reported for conventional radical polymn.

CC 35-3 (Chemistry of Synthetic High **Polymers**)IT **673-41-6**, p-Chlorobenzenediazonium tetrafluoroborate 101962-31-6

RL: CAT (Catalyst use); USES (Uses)

(kinetics of radical polymn. of vinyl monomers in presence of aged lanthanum versatate and chlorobenzenediazonium tetrafluoroborate)

IT 9003-42-3P, Poly(ethyl methacrylate) 9003-49-0P, Poly(butyl acrylate)  
9011-14-7P, PMMA 25014-41-9P, Acrylonitrile homopolymer 25085-83-0P,  
Poly(benzyl methacrylate) 25189-01-9P, Poly(phenyl methacrylate)  
**61467-26-3P**, Poly[bis(2-ethylhexyl itaconate)]

RL: **SPN (Synthetic preparation); PREP (Preparation)**

(polymn. of vinyl monomers in presence of aged lanthanum versatate and chlorobenzenediazonium tetrafluoroborate)

IT **673-41-6**, p-Chlorobenzenediazonium tetrafluoroborate

RL: CAT (Catalyst use); USES (Uses)

(kinetics of radical polymn. of vinyl monomers in presence of aged lanthanum versatate and chlorobenzenediazonium tetrafluoroborate)

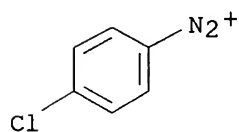
RN 673-41-6 HCAPLUS

CN Benzenediazonium, 4-chloro-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 17333-85-6

CMF C6 H4 Cl N2

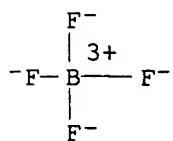


CM 2

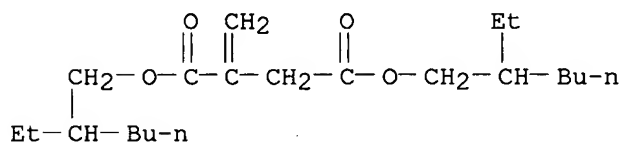
CRN 14874-70-5

CMF B F4

CCI CCS



IT **61467-26-3P**, Poly[bis(2-ethylhexyl itaconate)]  
 RL: **SPN (Synthetic preparation); PREP (Preparation)**  
 (polymn. of vinyl monomers in presence of aged lanthanum versatate and  
 chlorobenzenediazonium tetrafluoroborate)  
 RN 61467-26-3 HCAPLUS  
 CN Butanedioic acid, methylene-, bis(2-ethylhexyl) ester, homopolymer (9CI)  
 (CA INDEX NAME)  
 CM 1  
 CRN 2287-83-4  
 CMF C21 H38 O4



L46 ANSWER 32 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1996:323979 HCAPLUS  
 DN 125:35460  
 TI Air-activatable polymerizable adhesive **compositions** containing  
 onium salts  
 IN Kneafsey, Brendan  
 PA Loctite (Ireland) Ltd., Ire.  
 SO U.S., 11 pp., Cont.-in-part of U.S. Ser. No. 173,267.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5506326	A	19960409	US 1994-191235	19940203
	US 5523347	A	19960604	US 1993-173267	19931223
	US 5610251	A	19970311	US 1995-460252	19950602
PRAI	IE 1991-741		19910306		
	IE 1991-742		19910306		
	IE 1992-471		19920213		
	US 1992-847157		19920305		
	IE 1993-115		19930218		
	US 1993-173267		19931223		
OS	MARPAT 125:35460				
AB	The one-component <b>storage</b> -stable adhesive <b>compn.</b> comprises (a) a free-radically polymerizable monomer, and an activator				

**system** for effective polymn. of the monomer, the activator **system** comprising (b) an autoxidizable compd. which is a dihydropyridine (other than a stabilized 1,4-dihydropyridine), (c) an onium salt selected from diazonium, iodonium and sulfonium salts which do not interfere with polymn., and (d) a sol. ionic salt, with the proviso that the **compn.** does not contain a peroxide, or a peroxide precursor which produces peroxide in the absence of air or any ingredient which is a significant source of radicals in the absence of air. Exemplary onium salts are diaryliodonium, triarylsulfonium and aryl diazonium salts.

IC C09F022-028

NCL 526320000

CC 38-3 (**Plastics** Fabrication and Uses)

Section cross-reference(s): 35, 67

ST hydroxypropyl methacrylate polymer adhesive; diaryliodonium compd methacrylate polymer adhesive; one part **storage** stable adhesive; triarylsulfonium salt polymn catalyst methacrylate

IT Polymerization catalysts

(one-part **storage**-stable air-activatable polymerizable adhesive compns. contg. onium salts)

IT Diazonium compounds

Onium compounds

Sulfonium compounds

RL: CAT (Catalyst use); USES (Uses)

(one-part **storage**-stable air-activatable polymerizable adhesive compns. contg. onium salts)

IT Naphthenic acids, uses

RL: CAT (Catalyst use); USES (Uses)

(cobalt salts, one-part **storage**-stable air-activatable polymerizable adhesive compns. contg. onium salts)

IT Adhesives

(**storage**-stable, one-part; air-activatable polymerizable adhesive compns. contg. onium salts)

IT **437-13-8**, Triphenylsulfonium tetrafluoroborate 1483-72-3, Diphenyliodonium chloride 14024-18-1, Ferric trisacetylacetonate 34562-31-7, N-Phenyl-2-propyl-3,5-diethyl-1,2-dihydropyridine 66482-51-7, Diphenyl-4-tolylsulfonium hexafluorophosphate 71449-78-0, Diphenyl(4-phenylthiophenyl)sulfonium hexafluoroantimonate 131258-61-2, UVE 1014 159586-99-9 159587-00-5, N-Decyl-2-propyl-3,5-diethyl-1,2-dihydropyridine 159587-01-6, Phenyl-di-4-tolylsulfonium hexafluoroarsenate 159704-62-8, P 33 (salt)

RL: CAT (Catalyst use); USES (Uses)

(one-part **storage**-stable air-activatable polymerizable adhesive compns. contg. onium salts)

IT **9079-12-3P**, Hydroxypropyl methacrylate-methyl methacrylate copolymer **9086-85-5P**

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(one-part **storage**-stable air-activatable polymerizable adhesive compns. contg. onium salts)

IT **437-13-8**, Triphenylsulfonium tetrafluoroborate

RL: CAT (Catalyst use); USES (Uses)

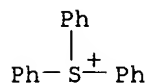
(one-part **storage**-stable air-activatable polymerizable adhesive compns. contg. onium salts)

RN 437-13-8 HCAPLUS

CN Sulfonium, triphenyl-, tetrafluoroborate(1-) (8CI, 9CI) (CA INDEX NAME)

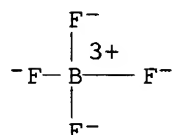
CM 1

CRN 18393-55-0  
CMF C18 H15 S



CM 2

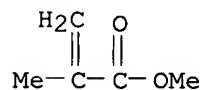
CRN 14874-70-5  
CMF B F4  
CCI CCS



IT **9079-12-3P**, Hydroxypropyl methacrylate-methyl methacrylate copolymer **9086-85-5P**  
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(one-part **storage**-stable air-activatable polymerizable adhesive compns. contg. onium salts)  
RN 9079-12-3 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6  
CMF C5 H8 O2

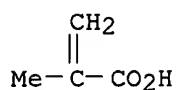


CM 2

CRN 27813-02-1  
CMF C7 H12 O3  
CCI IDS

CM 3

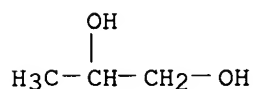
CRN 79-41-4  
CMF C4 H6 O2



CM 4

CRN 57-55-6

CMF C3 H8 O2



RN 9086-85-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol, homopolymer  
(9CI) (CA INDEX NAME)

CM 1

CRN 27813-02-1

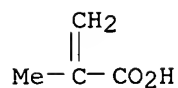
CMF C7 H12 O3

CCI IDS

CM 2

CRN 79-41-4

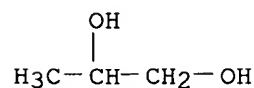
CMF C4 H6 O2



CM 3

CRN 57-55-6

CMF C3 H8 O2



L46 ANSWER 33 OF 47 . HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1995:721652 HCAPLUS

DN 123:288340

TI Microencapsulated phosphorus-based crosslinking accelerators, epoxy resin  
**compositions** containing them, and their cured products

IN Mori, Satoru; Tamura, Kazumi; Inoe, Teruhisa

PA Nippon Kayaku Kk, Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07133339	A2	19950523	JP 1993-170848	19930618
PRAI	JP 1993-170848		19930618		

AB The one-liq. compns. with good **storage** stability at ambient temp. contain epoxy resins, hardeners, and the accelerators contg. F-based crosslinking accelerators as the core and ethylenic polymers as the shell obtained by reaction of ethylenic monomers in org. solvents. Thus, a mixt. of PPh<sub>3</sub> 10, Me methacrylate 16, styrene 16, ethylene glycol dimethacrylate 8, V 60 0.025, V 40 0.025, and MEK 5 parts was blended with a mixt. of H<sub>2</sub>O 200, Neopelex 6F (Na dodecylbenzenesulfonate) 0.2, and poly(vinyl alc.) 0.125 part and heated at 60.degree. for 4 h to give 30 parts microcapsules, 7.7 parts of which were blended with 100 parts Epikote 828 and 91 parts Rikacid MT 500 to give a **compn.** showing gel time 600,000 s at 50.degree.. The **compn.** was cured at 150.degree. for 3 h to show glass-transition temp. 135.degree..

IC ICM C08G059-40  
 ICS B01J013-02; C08G059-18

CC 37-6 (**Plastics** Manufacture and Processing)

ST phenylphosphine microencapsulation epoxy resin catalyst; acrylic polymer capsule phosphorus catalyst; **storage** stability epoxy resin catalyst

IT Crosslinking catalysts  
 (microencapsulated phosphorus catalysts for epoxy resin compns. with good **storage** stability)

IT Epoxy resins, preparation  
 RL: **IMF (Industrial manufacture)**; PRP (Properties); **PREP (Preparation)**  
 (microencapsulated phosphorus catalysts for epoxy resin compns. with good **storage** stability)

IT **53196-70-6P**, Ethylene glycol dimethacrylate-methyl methacrylate-styrene copolymer **81876-52-0P**, tert-Butyl methacrylate-ethylene glycol dimethacrylate copolymer **156776-91-9P**  
**169503-12-2P** **169503-13-3P** **169503-14-4P**  
 RL: CAT (Catalyst use); **IMF (Industrial manufacture)**; PEP (Physical, engineering or chemical process); **PREP (Preparation)**;  
 PROC (Process); USES (Uses)  
 (microencapsulated phosphorus catalysts for epoxy resin compns. with good **storage** stability)

IT 603-35-0, Triphenylphosphine, uses 638-21-1, Phenylphosphine 829-85-6, Diphenylphosphine 998-40-3, Tributylphosphine 2071-20-7, Bis(diphenylphosphino)methane **3053-68-7** 26834-21-9, Tritolylphosphine  
 RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process);  
 PROC (Process); USES (Uses)  
 (microencapsulated phosphorus catalysts for epoxy resin compns. with good **storage** stability)

IT 76397-91-6P  
 RL: **IMF (Industrial manufacture)**; PRP (Properties); **PREP (Preparation)**  
 (microencapsulated phosphorus catalysts for epoxy resin compns. with good **storage** stability)

IT **53196-70-6P**, Ethylene glycol dimethacrylate-methyl methacrylate-styrene copolymer **81876-52-0P**, tert-Butyl methacrylate-ethylene glycol dimethacrylate copolymer **156776-91-9P**  
**169503-12-2P 169503-13-3P 169503-14-4P**  
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process); USES (Uses)  
 (microencapsulated phosphorus catalysts for epoxy resin compns. with good **storage** stability)

RN 53196-70-6 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with ethenylbenzene and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 100-42-5

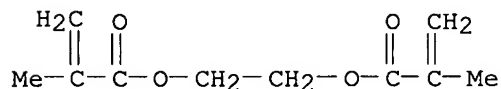
CMF C8 H8

$\text{H}_2\text{C}=\text{CH}-\text{Ph}$

CM 2

CRN 97-90-5

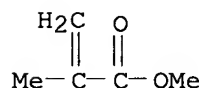
CMF C10 H14 O4



CM 3

CRN 80-62-6

CMF C5 H8 O2



RN 81876-52-0 HCAPLUS

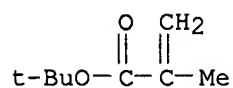
CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with 1,2-ethanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 585-07-9

CMF C8 H14 O2

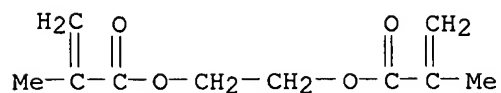




CM 2

CRN 97-90-5

CMF C10 H14 O4



RN 156776-91-9 HCAPLUS

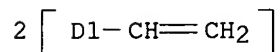
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with diethenylbenzene and ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 1321-74-0

CMF C10 H10

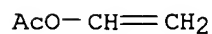
CCI IDS



CM 2

CRN 108-05-4

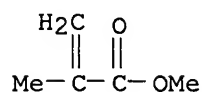
CMF C4 H6 O2



CM 3

CRN 80-62-6

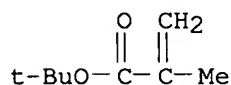
CMF C5 H8 O2



RN 169503-12-2 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with  
 1,1-dimethylethyl 2-methyl-2-propenoate and ethenylbenzene (9CI) (CA  
 INDEX NAME)

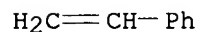
CM 1

CRN 585-07-9  
 CMF C8 H14 O2



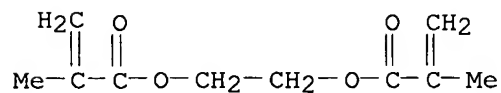
CM 2

CRN 100-42-5  
 CMF C8 H8



CM 3

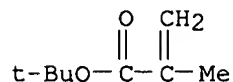
CRN 97-90-5  
 CMF C10 H14 O4



RN 169503-13-3 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with  
 1,1-dimethylethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate  
 (9CI) (CA INDEX NAME)

CM 1

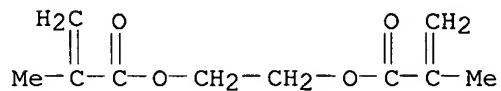
CRN 585-07-9  
 CMF C8 H14 O2



CM 2

CRN 97-90-5

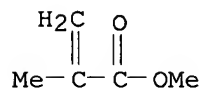
CMF C10 H14 O4



CM 3

CRN 80-62-6

CMF C5 H8 O2



RN 169503-14-4 HCAPLUS

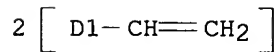
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with diethenylbenzene, ethenyl acetate and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 1321-74-0

CMF C10 H10

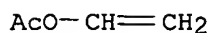
CCI IDS



CM 2

CRN 108-05-4

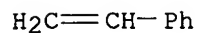
CMF C4 H6 O2



CM 3

CRN 100-42-5

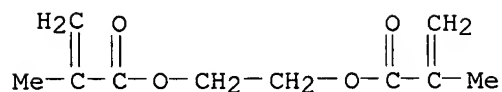
CMF C8 H8



CM 4

CRN 97-90-5

CMF C10 H14 O4



IT 3053-68-7

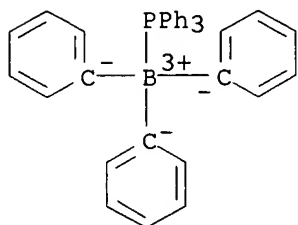
RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process);

PROC (Process); USES (Uses)

(microencapsulated phosphorus catalysts for epoxy resin compns. with good **storage** stability)

RN 3053-68-7 HCAPLUS

CN Boron, triphenyl(triphenylphosphine)-, (T-4)- (9CI) (CA INDEX NAME)



L46 ANSWER 34 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1994:136216 HCAPLUS

DN 120:136216

TI Photocurable **compositions** useful for printing plates and color image-forming materials

IN Komamura, Tawara; Watanabe, Hiroshi; Maehashi, Tatsuichi; Nakatani, Koichi; Kato, Katsunori

PA Konishiroku Photo Ind, Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

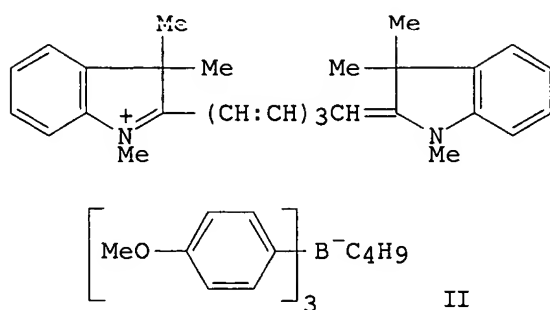
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05247110	A2	19930924	JP 1992-51584	19920310
	JP 3259060	B2	20020218		
PRAI	JP 1992-51584		19920310		
GI					



- AB Photocurable compns. with good **storage** stability and high sensitivity to long wavelength light, esp. IR or near-IR light (e.g. semiconductor laser, etc.), contain  $\text{R}_1\text{R}_2\text{R}_3\text{R}_4\text{P}^+ \text{B}^-\text{R}_5\text{R}_6\text{R}_7\text{R}_8$  [I;  $\text{R}_1$ -8 = alkyl, aryl, alkenyl, alkynyl, heterocyclic; .gtoreq.2 groups of  $\text{R}_1$ -4 may bind each other to form a ring; .gtoreq.1 group of  $\text{R}_5$ -8 is alkyl; .gtoreq.2 groups of  $\text{R}_5$ -8 may bind each other to form a ring; groups of  $\text{R}_1$ -8 may be further substituted] and org. pigments. Thus, a soln. contg. dipentaerythritol hexaacrylate 60, pentaerythritol-terephthalic acid prepolymer acrylate ester 60, Bu acrylate-Et acrylate-maleic anhydride copolymer 80, Superchlone 907LTA (chlorinated polyethylene) 20, polymn. initiator II 1, I ( $\text{R}_1$ -4 =  $\text{C}_4\text{H}_9$ ;  $\text{R}_5$ -7 = Ph;  $\text{R}_8$  =  $\text{C}_4\text{H}_9$ ) 3, and methyl Cellosolve 1800 parts was coated on a degreased Al plate and pressure-laminated with a PET film to give a photosensitive lithog. plate material. The material was exposed to semiconductor laser light and the cover film was peeled to form a pos. pattern, which showed good printing properties in offset printing and gave clear and high resolu. printed matter.
- IC ICM C08F002-50  
ICS C01B035-14
- CC 37-6 (**Plastics** Manufacture and Processing)  
Section cross-reference(s): 42, 74
- IT **153126-09-1 153126-11-5 153126-12-6**  
**153126-14-8 153126-16-0 153126-18-2**  
**153146-33-9**  
RL: USES (Uses)  
(photocurable acrylic compns. contg., for printing plates and color image-forming materials)
- IT 7440-18-8D, Ruthenium, quinoline complexes, borate salts  
**121431-64-9** 126609-59-4 153121-11-0D, ruthenium complexes, borate salts  
RL: USES (Uses)  
(pigments, photocurable acrylic compns. contg., for printing plates and color image-forming materials)
- IT 29570-58-9DP, Dipentaerythritol hexaacrylate, polymers with pentaerythritol-terephthalic acid prepolymer acrylate ester

**119845-81-7P 153369-01-8DP**, polymers with  
dipentaerythritol hexaacrylate

RL: **PREP (Preparation)**

(prepn. of, for printing plates and color image-forming materials)

IT **153126-09-1 153126-11-5 153126-12-6**  
**153126-14-8 153126-16-0 153126-18-2**  
**153146-33-9**

RL: **USES (Uses)**

(photocurable acrylic compns. contg., for printing plates and color  
image-forming materials)

RN **153126-09-1 HCAPLUS**

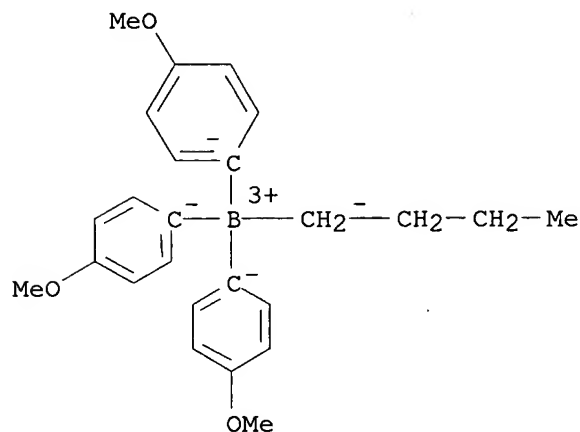
CN **Phosphonium, tetrabutyl-, (T-4)-butyltris(4-methoxyphenyl)borate(1-) (9CI)**  
(CA INDEX NAME)

CM 1

CRN 121431-62-7

CMF C25 H30 B O3

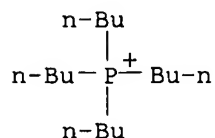
CCI CCS



CM 2

CRN 15853-37-9

CMF C16 H36 P

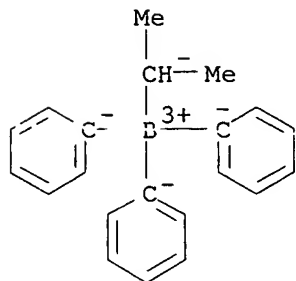


RN **153126-11-5 HCAPLUS**

CN **Phosphonium, tetraethyl-, (T-4)-(1-methylethyl)triphenylborate(1-) (9CI)**  
(CA INDEX NAME)

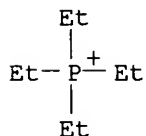
CM 1

CRN 153126-10-4  
CMF C21 H22 B  
CCI CCS



CM 2

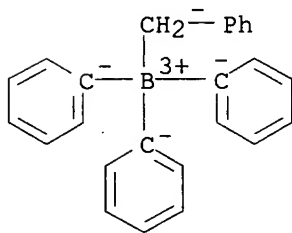
CRN 13983-95-4  
CMF C8 H20 P



RN 153126-12-6 HCAPLUS  
CN Phosphonium, tetrabutyl-, (T-4)-triphenyl(phenylmethyl)borate(1-) (9CI)  
(CA INDEX NAME)

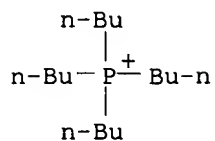
CM 1

CRN 98689-32-8  
CMF C25 H22 B  
CCI CCS



CM 2

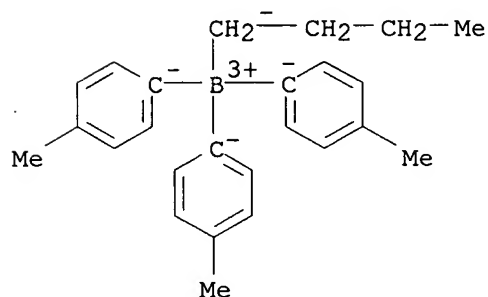
CRN 15853-37-9  
CMF C16 H36 P



RN 153126-14-8 HCAPLUS  
 CN Phosphonium, tetrabutyl-, (T-4)-butyltris(4-methylphenyl)borate(1-) (9CI)  
 (CA INDEX NAME)

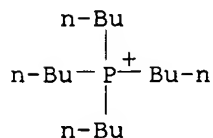
CM 1

CRN 153126-13-7  
 CMF C25 H30 B  
 CCI CCS



CM 2

CRN 15853-37-9  
 CMF C16 H36 P

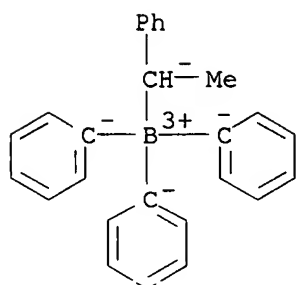


RN 153126-16-0 HCAPLUS  
 CN Phosphonium, tetrabutyl-, (T-4)-triphenyl(1-phenylethyl)borate(1-) (9CI)  
 (CA INDEX NAME)

CM 1

CRN 153126-15-9  
 CMF C26 H24 B  
 CCI CCS

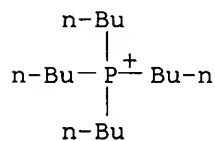




CM 2

CRN 15853-37-9

CMF C16 H36 P



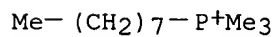
RN 153126-18-2 HCAPLUS

CN Phosphonium, trimethyloctyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 153126-17-1

CMF C11 H26 P

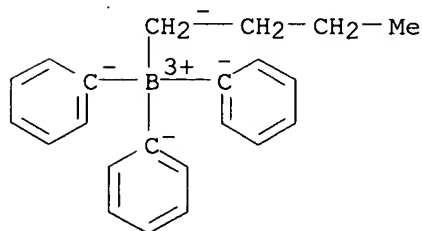


CM 2

CRN 47252-39-1

CMF C22 H24 B

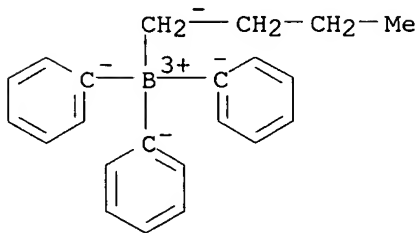
CCI CCS



RN 153146-33-9 HCAPLUS  
 CN Phosphonium, tetrabutyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

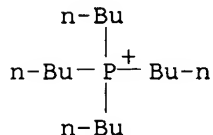
CM 1

CRN 47252-39-1  
 CMF C22 H24 B  
 CCI CCS



CM 2

CRN 15853-37-9  
 CMF C16 H36 P



IT 121431-64-9

RL: USES (Uses)

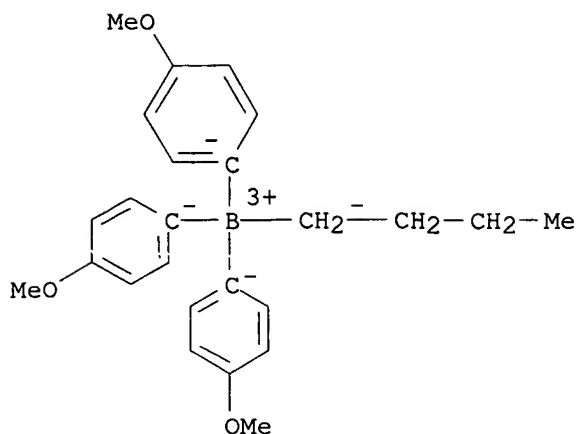
(pigments, photocurable acrylic compns. contg., for printing plates and color image-forming materials)

RN 121431-64-9 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, (T-4)-butyltris(4-methoxyphenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

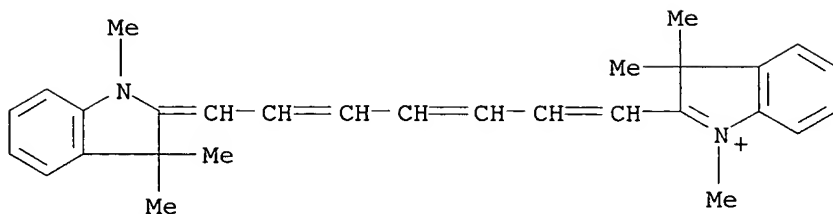
CRN 121431-62-7  
 CMF C25 H30 B O3  
 CCI CCS



CM 2

CRN 47676-39-1

CMF C29 H33 N2



IT **119845-81-7P 153369-01-8DP**, polymers with  
dipentaerythritol hexaacrylate  
RL: **PREP (Preparation)**  
(prepn. of, for printing plates and color image-forming materials)

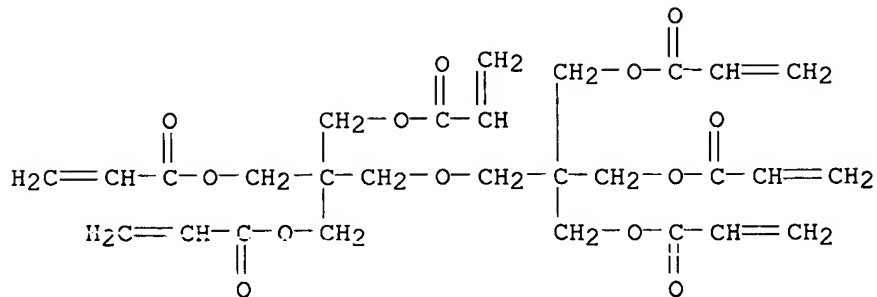
RN 119845-81-7 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, di-2-propenyl ester, polymer with  
2-[[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-  
propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-  
propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9

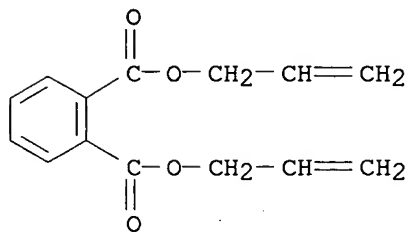
CMF C28 H34 O13



CM 2

CRN 131-17-9

CMF C14 H14 O4



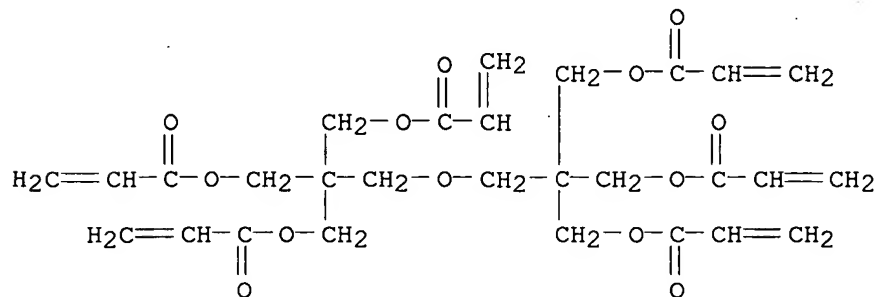
RN 153369-01-8 HCAPLUS

CN	1,4-Benzenedicarboxylic acid, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol, 2-propenoate, polymer with 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)
----	---

CM 1

CRN 29570-58-9

CMF C28 H34 O13



CM 2

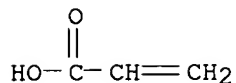
CRN 153189-60-7

CMF (C8 H6 O4 . C5 H12 O4)x . x C3 H4 O2

CM 3

CRN 79-10-7

CMF C3 H4 O2



CM 4

CRN 90021-20-8

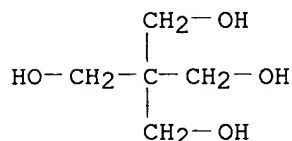
CMF (C8 H6 O4 . C5 H12 O4)x

CCI PMS

CM 5

CRN 115-77-5

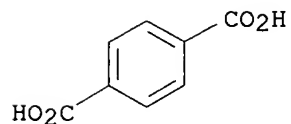
CMF C5 H12 O4



CM 6

CRN 100-21-0

CMF C8 H6 O4



L46 ANSWER 35 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1993:650570 HCAPLUS

DN 119:250570

TI Vinyl polymerization initiated with the lanthanum versatate/p-chlorobenzenediazonium tetrafluoroborate system

AU Sato, Tsuneyuki; Toyosu, Kentaro; Tanaka, Hitoshi

CS Fac. Eng., Tokushima Univ., Tokushima, 770, Japan

SO Makromolekulare Chemie (1993), 194(10), 2797-805

CODEN: MACEAK; ISSN: 0025-116X

DT Journal

LA English

AB The system of La versatate (I) and p-chlorobenzenediazonium tetrafluoroborate (II) effectively induced polymns. of electron-accepting monomers such as Me methacrylate (III) and bis(2-ethylhexyl) itaconate (IV). The polymn. of III with the I-II system was investigated kinetically in acetone. The polymn. rate ( $R_p$ ) was expressed by  $R_p = k[I-II]^{0.44}[III]^{0.65}$  at 50.degree., fixing the I/II mole ratio at 1. The overall activation energy of the polymn. was 37.1 kJ.mol<sup>-1</sup>. Spin-trapping results revealed that the initiator system produced p-chlorophenyl radicals. The polymn. system of IV involved ESR-observable propagating polymer radicals, indicating that the polymn. initiated with the I-II system proceeded via a radical mechanism. During the polymn., the ESR spectrum was changed in shape, suggesting that the propagating polymer radical interacted with some species formed by the initiation reaction. Interacting polymer radicals were also obsd. in the polymns. of di-Et itaconate and N-dodecylmaleimide with the I-II system. Polymn. systems of III, styrene, and Bu acrylate also involved ESR-observable radicals, although it was not clear if they were propagating polymer radicals.

CC 35-3 (Chemistry of Synthetic High Polymers)

IT 673-41-6, p-Chlorobenzenediazonium tetrafluoroborate 101962-31-6

RL: CAT (Catalyst use); USES (Uses)

(catalysts contg., for polymn. of vinyl compds., radical kinetics in relation to)

IT 2287-83-4, Bis(2-ethylhexyl itaconate) 2409-52-1, Diethyl itaconate

RL: RCT (Reactant); RACT (Reactant or reagent)

(polymn. of, ESR spectrum in radical)

IT 9003-49-0P, Poly(butyl acrylate) 9003-53-6P, Polystyrene

9011-14-7P, PMMA 61467-26-3P, Poly[bis(2-ethylhexyl itaconate)]

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of, radical catalysts for)

IT 673-41-6, p-Chlorobenzenediazonium tetrafluoroborate

RL: CAT (Catalyst use); USES (Uses)

(catalysts contg., for polymn. of vinyl compds., radical kinetics in relation to)

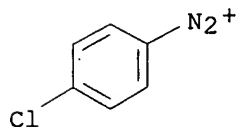
RN 673-41-6 HCAPLUS

CN Benzenediazonium, 4-chloro-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 17333-85-6

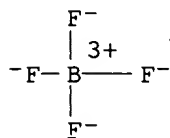
CMF C6 H4 Cl N2



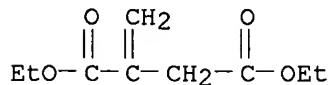
CM 2

CRN 14874-70-5

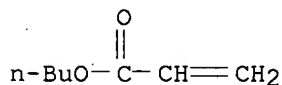
CMF B F4  
CCI CCS



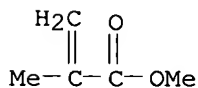
IT 2409-52-1, Diethyl itaconate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(polymn. of, ESR spectrum in radical)  
RN 2409-52-1 HCAPLUS  
CN Butanedioic acid, methylene-, diethyl ester (9CI) (CA INDEX NAME)



IT 9003-49-0P, Poly(butyl acrylate) 9011-14-7P, PMMA  
61467-26-3P, Poly[bis(2-ethylhexyl itaconate)]  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of, radical catalysts for)  
RN 9003-49-0 HCAPLUS  
CN 2-Propenoic acid, butyl ester, homopolymer (9CI) (CA INDEX NAME)  
  
CM 1  
  
CRN 141-32-2  
CMF C7 H12 O2



RN 9011-14-7 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)  
  
CM 1  
  
CRN 80-62-6  
CMF C5 H8 O2



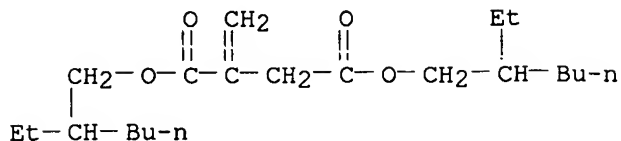
RN 61467-26-3 HCAPLUS  
CN Butanedioic acid, methylene-, bis(2-ethylhexyl) ester, homopolymer (9CI)

(CA INDEX NAME)

CM 1

CRN 2287-83-4

CMF C21 H38 O4



- L46 ANSWER 36 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1993:429063 HCAPLUS  
 DN 119:29063  
 TI Synthesis and study of oligoester carborane acrylates  
 AU Mokrousov, A. L.; Aronovich, D. A.; Sineokov, A. P.; Beloded, L. N.;  
 Lazaris, A. Ya.; Kurskii, Yu. A.  
 CS Nauchno-Issled. Inst. Khim.-Tekhnol. Polim., Russia  
 SO Zhurnal Prikladnoi Khimii (Sankt-Peterburg, Russian Federation) (1992),  
 65(10), 2317-23  
 CODEN: ZPKHAB; ISSN: 0044-4618  
 DT Journal  
 LA Russian  
 AB Acrylates of 1,7-bis(hydroxymethyl)-m-carborane oligoesters with maleic  
 acid, isophthalic acid, itaconic anhydride, pyromellitic dianhydride, and  
 3,3',4,4'-benzophenonetetracarboxylic dianhydride were prep'd. Mol. wt.  
 distribution and viscosity of the oligomers varied on changing the ratio  
 of polybasic acid to carboranediol. The crosslinked oligoester acrylates  
 gave thermally stable adhesives with good characteristics.  
 CC 37-3 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 38  
 IT Polyesters, preparation  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (carborane group-contg., acrylate-terminated, oligomeric, prepn. and  
 properties of)  
 IT Polyketones  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (polyester-, carborane group-contg., acrylate-terminated, oligomeric,  
 prepn. and properties of)  
 IT Polyesters, preparation  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (polyketone-, carborane group-contg., acrylate-terminated, oligomeric,  
 prepn. and properties of)  
 IT 148078-06-2P 148078-08-4P 148339-44-0P  
 148339-45-1P 148339-46-2P 148339-47-3P  
 148339-48-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (adhesives, prepn. and properties of)  
 IT 148415-18-3P 148415-19-4P 148498-43-5P  
 RL: SPN (Synthetic preparation); FORM (Formation,  
 nonpreparative); PREP (Preparation)  
 (formation of, in prepn. of oligoester acrylates)  
 IT 148078-05-1P, 1,7-Bis(hydroxymethyl)-m-carborane-isophthalic acid



copolymer diacrylate, sru **148078-07-3P**, 1,7-Bis(hydroxymethyl)-m-carborane-maleic acid copolymer diacrylate, sru **148092-10-8P**, 1,7-Bis(hydroxymethyl)-m-carborane-maleic acid copolymer diacrylate **148092-12-0P**, 1,7-Bis(hydroxymethyl)-m-carborane-itaconic acid copolymer diacrylate **148092-14-2P**, 1,7-Bis(hydroxymethyl)-m-carborane-isophthalic acid copolymer diacrylate **148092-16-4P** **148092-17-5P**

RL: **SPN (Synthetic preparation); PREP (Preparation)**  
(oligomeric, prepn. and compn. and viscosity of)

IT **148078-06-2P 148078-08-4P 148339-44-0P**  
**148339-45-1P 148339-46-2P 148339-47-3P**  
**148339-48-4P**

RL: **SPN (Synthetic preparation); PREP (Preparation)**  
(adhesives, prepn. and properties of)

RN 148078-06-2 HCAPLUS

CN Poly(1,7-dicarbadoecaborane(12)-1,7-diylmethylenecarbonyl-1,3-phenylenecarbonyloxymethylene), .alpha.-[[(1-oxo-2-propenyl)oxy]methyl]-.omega.-[7-[[[(1-oxo-2-propenyl)oxy]methyl]-1,7-dicarbadoecaboran(12)-1-yl]-, homopolymer (9CI) (CA INDEX NAME)

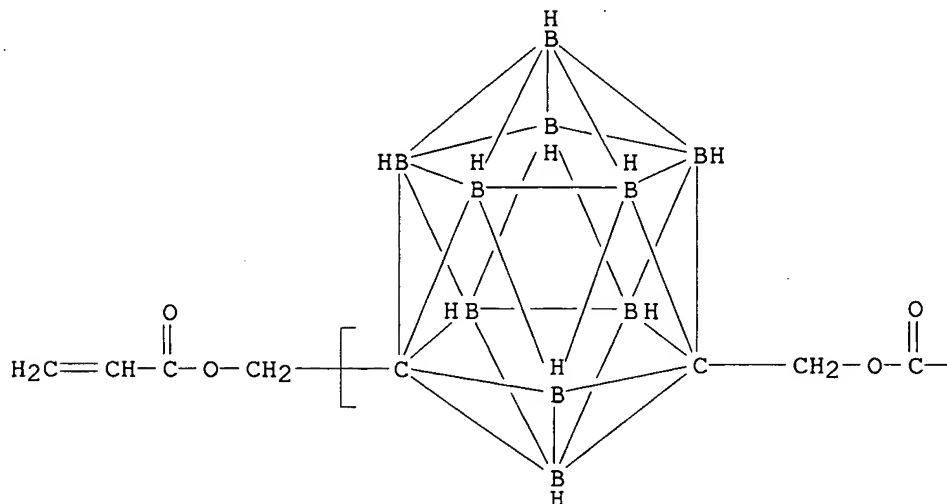
CM 1

CRN 148078-05-1

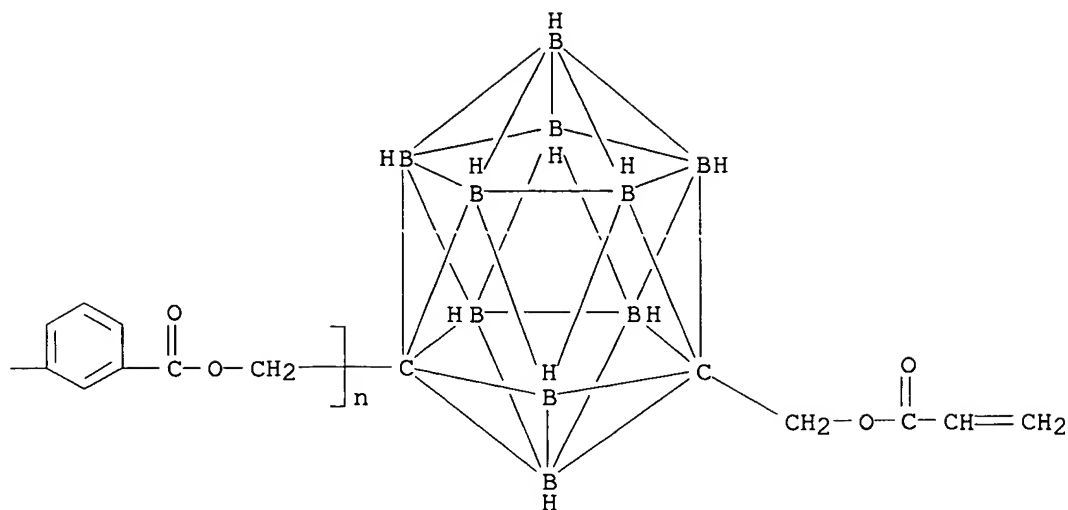
CMF (C12 H18 B10 O4)n C10 H20 B10 O4

CCI PMS

PAGE 1-A



PAGE 1-B

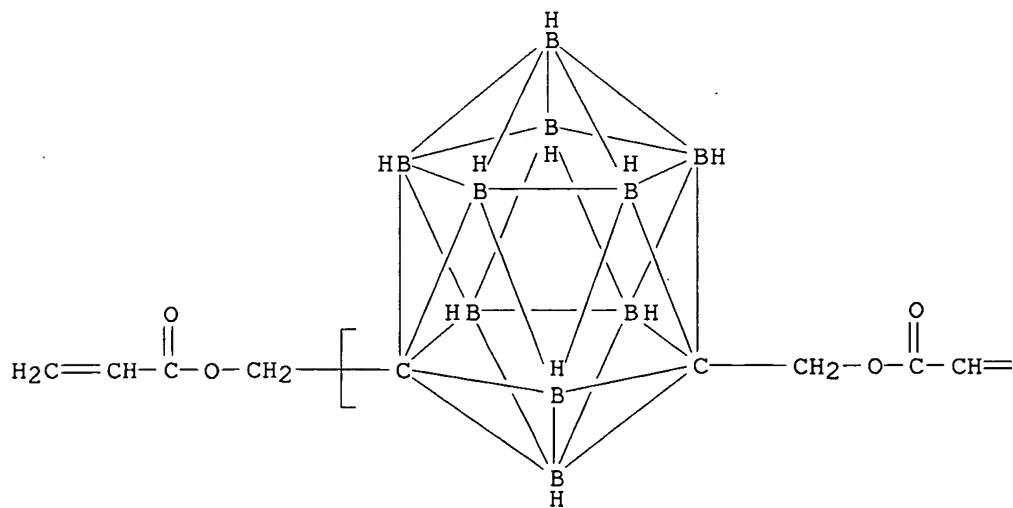


RN 148078-08-4 HCAPLUS  
 CN Poly[1,7-dicarbadodecaborane(12)-1,7-diylmethyleneoxy(1,4-dioxo-2-butene-1,4-diyl)oxymethylene], .alpha.-[[1-oxo-2-propenyl)oxy)methyl]-.omega.-[7-[[1-oxo-2-propenyl)oxy)methyl]-1,7-dicarbadodecaboran(12)-1-yl]- (9CI)  
 (CA INDEX NAME)

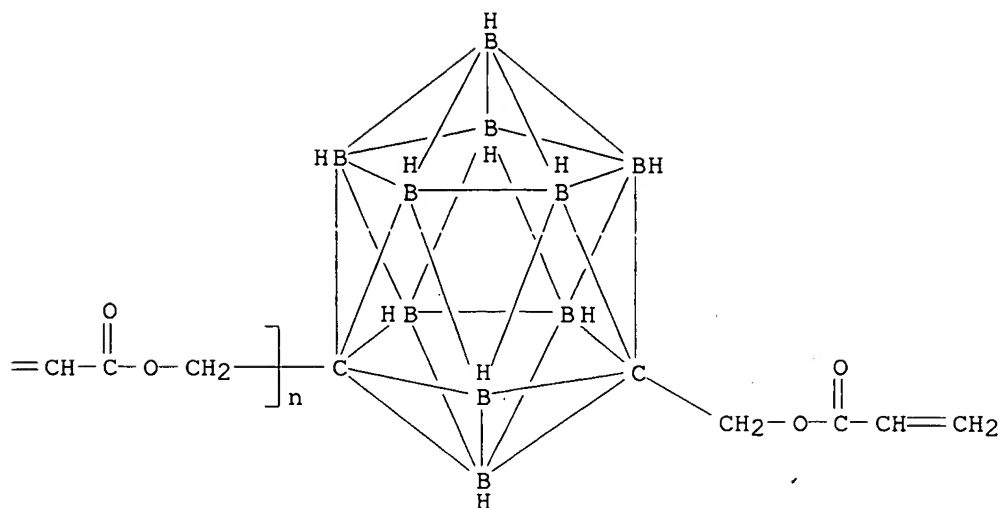
CM 1

CRN 148078-07-3  
 CMF (C8 H16 B10 O4)n C10 H20 B10 O4  
 CCI PMS

PAGE 1-A



PAGE 1-B



RN 148339-44-0 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,7-dicarbododecaborane(12)-1,7-dimethanol, di-2-propenoate, homopolymer (9CI) (CA INDEX NAME)

CM 1

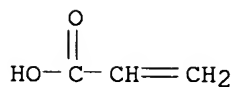
CRN 148092-14-2

CMF (C8 H6 O4 . C4 H16 B10 O2)x . 2 C3 H4 O2

CM 2

CRN 79-10-7

CMF C3 H4 O2



CM 3

CRN 30661-75-7

CMF (C8 H6 O4 . C4 H16 B10 O2)x

CCI PMS

CM 4

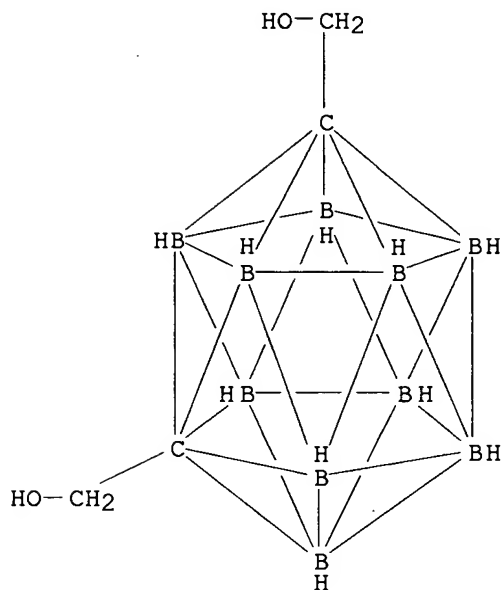
CRN 23924-78-9

CMF C4 H16 B10 O2

CRN 162993-32-0  
 CMF (C5 H6 O4 . C4 H16 B10 O2)x  
 CCI PMS

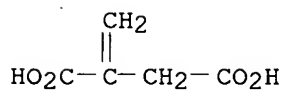
CM 4

CRN 23924-78-9  
 CMF C4 H16 B10 O2



CM 5

CRN 97-65-4  
 CMF C5 H6 O4



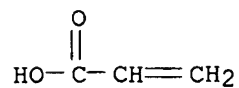
RN 148339-46-2 HCAPLUS  
 CN 2-Butenedioic acid (2Z)-, polymer with 1,7-dicarbadodecaborane(12)-1,7-dimethanol, di-2-propenoate, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 148092-10-8  
 CMF (C4 H16 B10 O2 . C4 H4 O4)x . 2 C3 H4 O2

CM 2

CRN 79-10-7  
 CMF C3 H4 O2



CM 3

CRN 162681-92-7

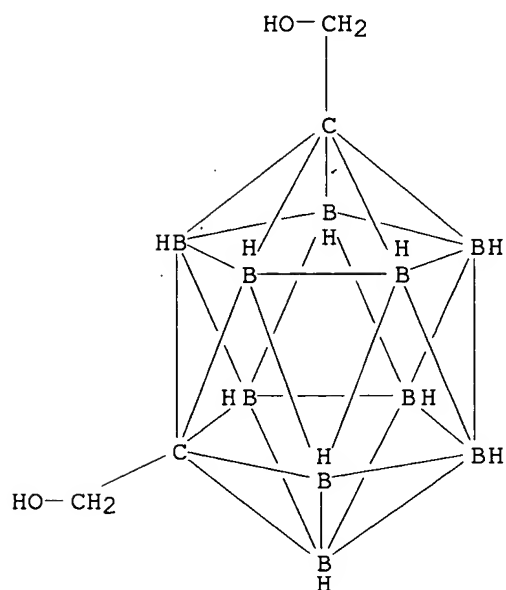
CMF (C4 H16 B10 O2 . C4 H4 O4)x

CCI PMS

CM 4

CRN 23924-78-9

CMF C4 H16 B10 O2

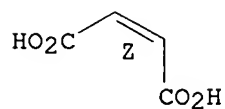


CM 5

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



RN 148339-47-3 HCAPLUS

CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

1,7-dicarbadoecaborane(12)-1,7-dimethanol, 2-propenoate, homopolymer  
(9CI) (CA INDEX NAME)

CM 1

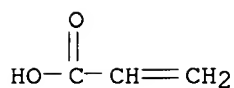
CRN 148092-16-4

CMF (C10 H2 O6 . C4 H16 B10 O2)x . x C3 H4 O2

CM 2

CRN 79-10-7

CMF C3 H4 O2



CM 3

CRN 163148-55-8

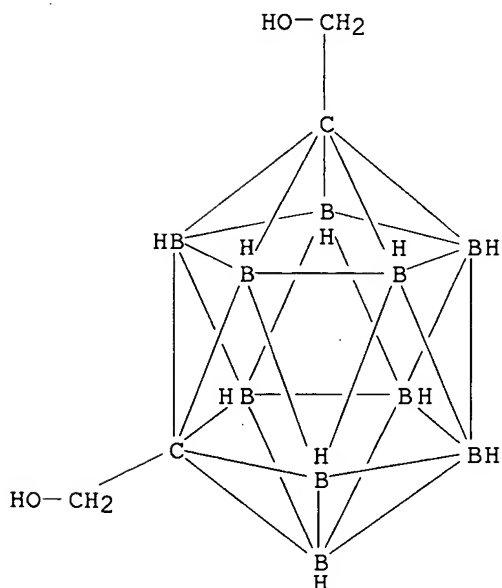
CMF (C10 H2 O6 . C4 H16 B10 O2)x

CCI PMS

CM 4

CRN 23924-78-9

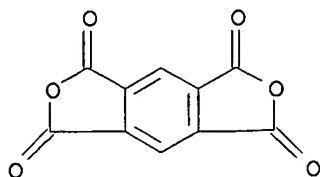
CMF C4 H16 B10 O2



CM 5

CRN 89-32-7

CMF C10 H2 O6



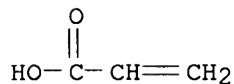
RN 148339-48-4 HCAPLUS  
 CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with  
 1,7-dicarbadodecaborane(12)-1,7-dimethanol, 2-propenoate, homopolymer  
 (9CI) (CA INDEX NAME)

CM 1

CRN 148092-17-5  
 CMF (C17 H6 O7 . C4 H16 B10 O2)x . x C3 H4 O2

CM 2

CRN 79-10-7  
 CMF C3 H4 O2

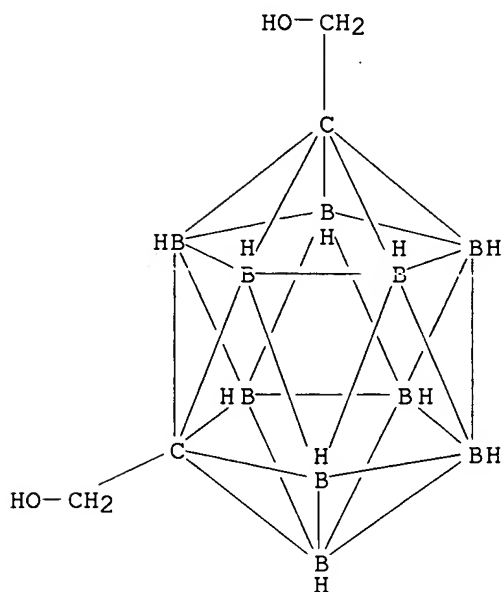


CM 3

CRN 163647-68-5  
 CMF (C17 H6 O7 . C4 H16 B10 O2)x  
 CCI PMS

CM 4

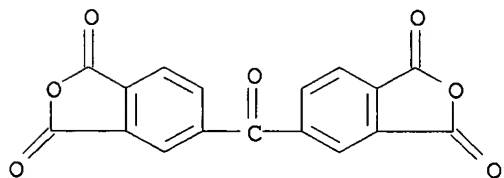
CRN 23924-78-9  
 CMF C4 H16 B10 O2



CM 5

CRN 2421-28-5

CMF C17 H6 O7



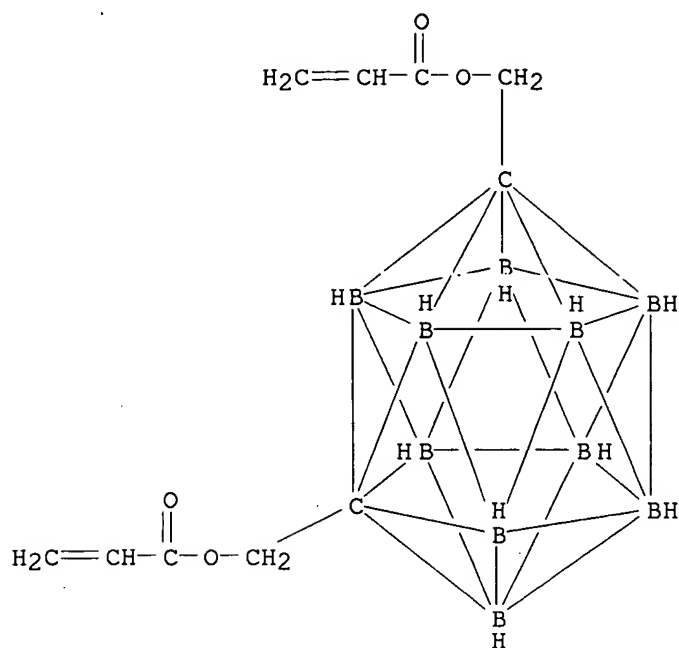
IT 148415-18-3P 148415-19-4P 148498-43-5P

RL: SPN (Synthetic preparation); FORM (Formation, nonpreparative); PREP (Preparation)  
(formation of, in prepn. of oligoester acrylates)

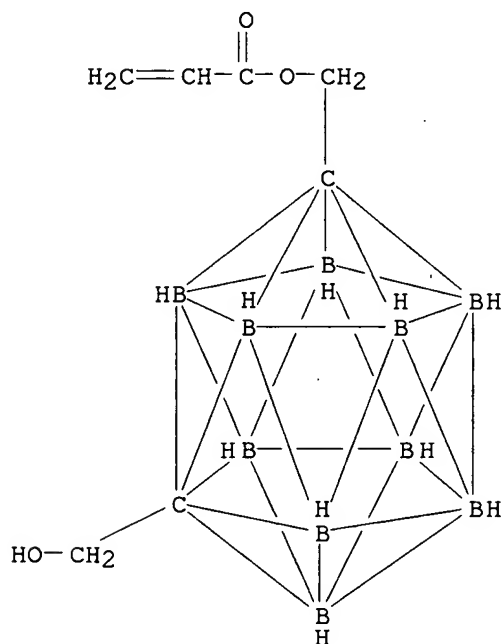
RN 148415-18-3 HCAPLUS

CN 2-Propenoic acid, 1,7-dicarbadoecaborane(12)-1,7-diylbis(methylene) ester  
(9CI) (CA INDEX NAME)



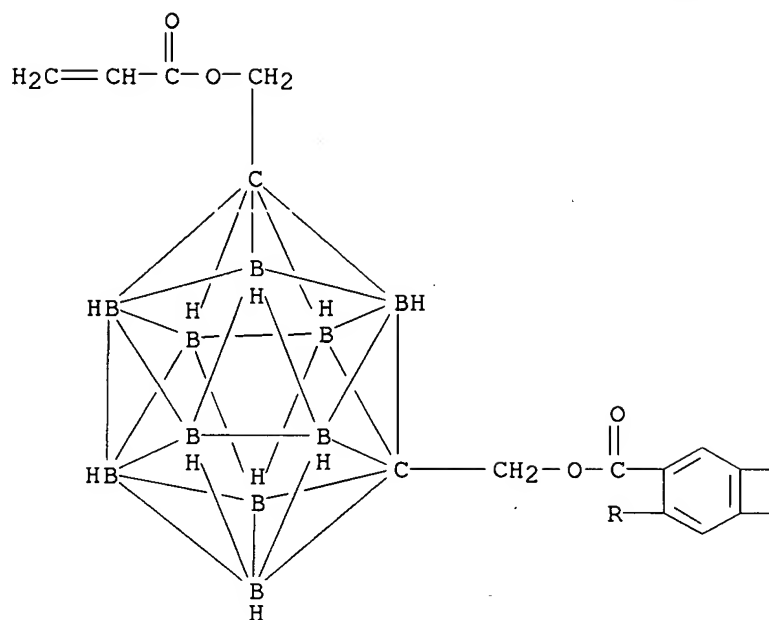


RN 148415-19-4 HCAPLUS  
 CN 2-Propenoic acid, [7-(hydroxymethyl)-1,7-dicarbadodecaboran(12)-1-yl]methyl ester (9CI) (CA INDEX NAME)

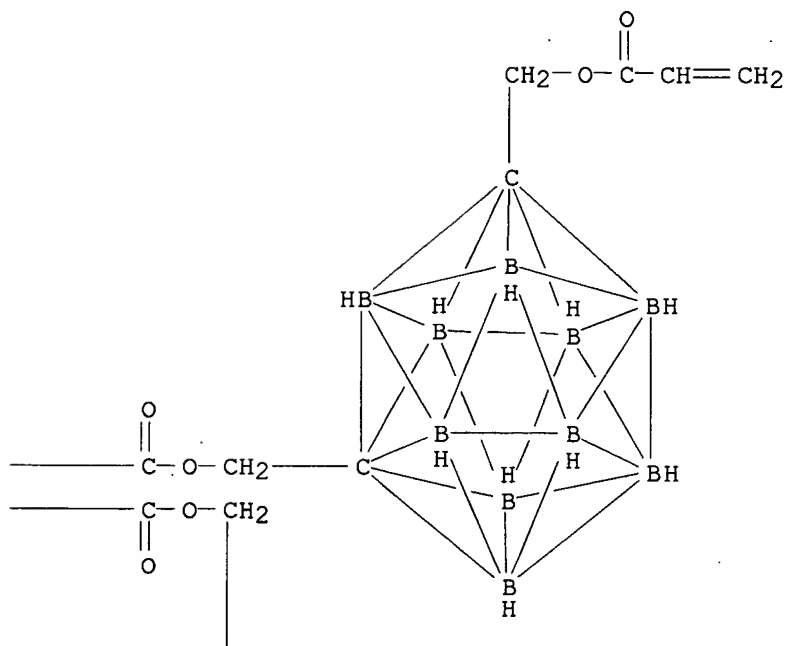


RN 148498-43-5 HCAPLUS  
 CN 1,2,4,5-Benzenetetracarboxylic acid, tetrakis[[7-[(1-oxo-2-propenyl)oxy]methyl]-1,7-dicarbadodecaboran(12)-1-yl]methyl ester (9CI) (CA INDEX NAME)

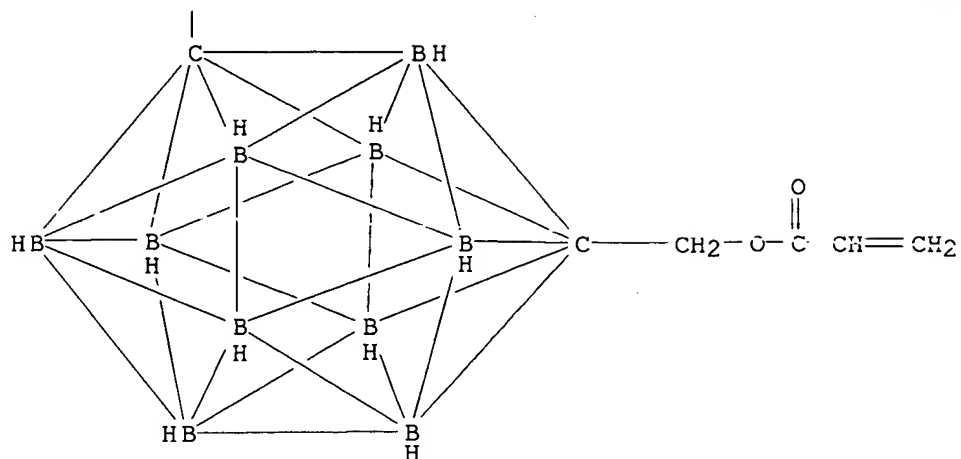
PAGE 1-A



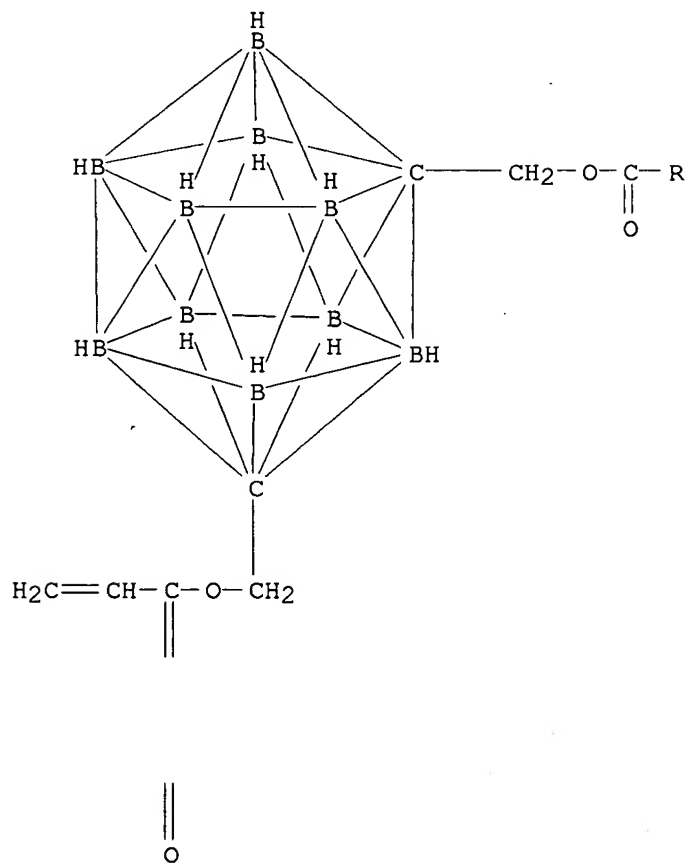
PAGE 1-B



PAGE 2-B



PAGE 3-A



PAGE 4-A

IT 148078-05-1P, 1,7-Bis(hydroxymethyl)-m-carborane-isophthalic acid copolymer diacrylate, sru 148078-07-3P, 1,7-Bis(hydroxymethyl)-m-

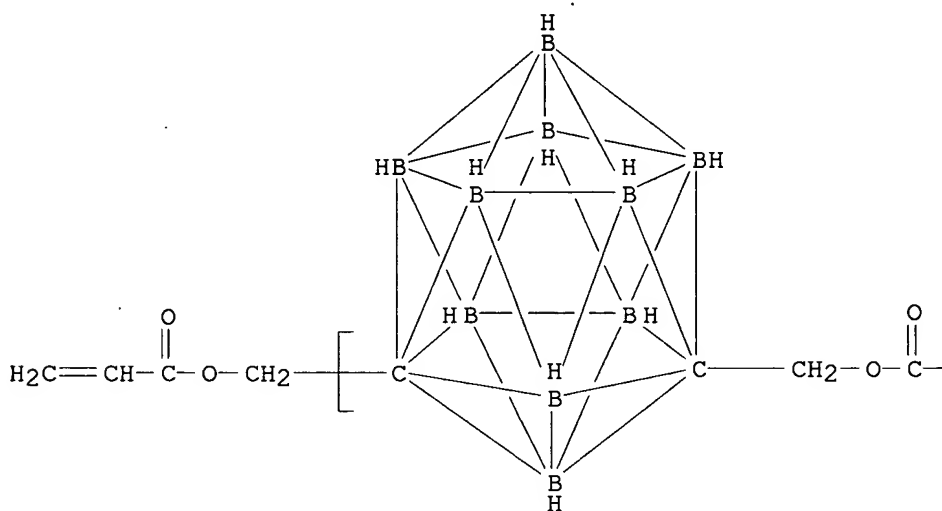
carborane-maleic acid copolymer diacrylate, sru **148092-10-8P**,  
 1,7-Bis(hydroxymethyl)-m-carborane-maleic acid copolymer diacrylate  
**148092-12-0P**, 1,7-Bis(hydroxymethyl)-m-carborane-itaconic acid  
 copolymer diacrylate **148092-14-2P**, 1,7-Bis(hydroxymethyl)-m-  
 carborane-isophthalic acid copolymer diacrylate **148092-16-4P**  
**148092-17-5P**

RL: **SPN (Synthetic preparation); PREP (Preparation)**  
 (oligomeric, prepn. and compn. and viscosity of)

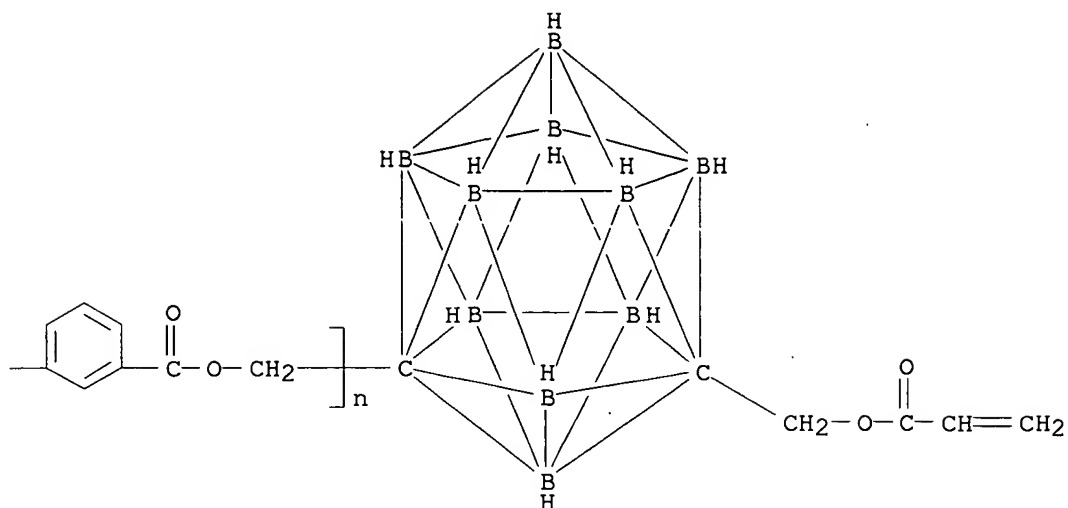
RN 148078-05-1 HCAPLUS

CN Poly(1,7-dicarbadoecaborane(12)-1,7-diylmethylenecarbonyl-1,3-  
 phenylenecarbonyloxymethylene), .alpha.-[[(1-oxo-2-propenyl)oxy]methyl]-  
 .omega.-[7-[[[(1-oxo-2-propenyl)oxy]methyl]-1,7-dicarbadoecaboran(12)-i-  
 yl]- (9CI) (CA INDEX NAME)

PAGE 1-A

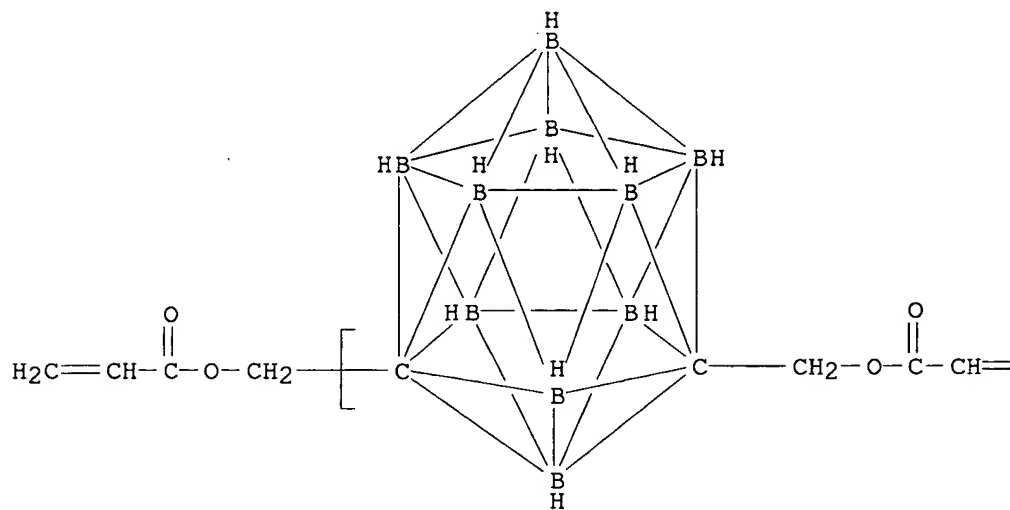


PAGE 1-B

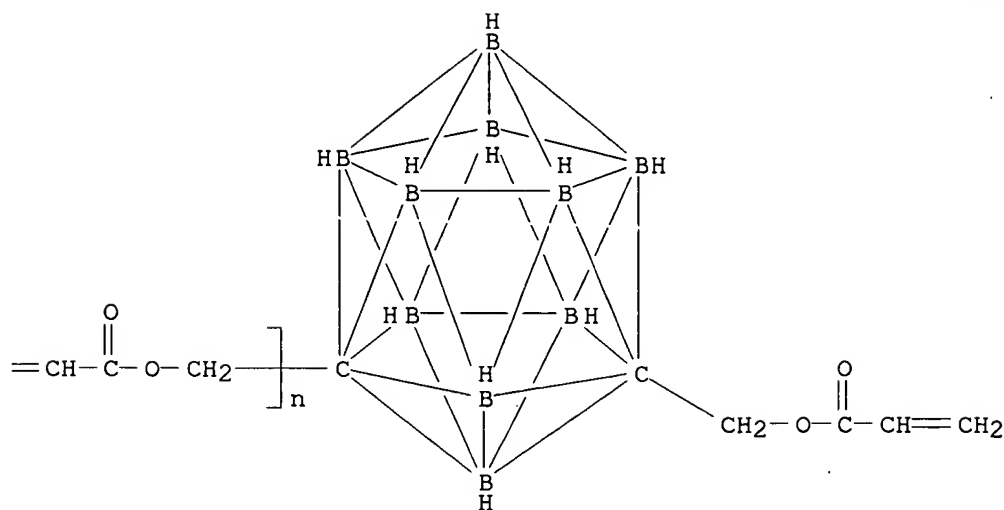


RN 148078-07-3 HCAPLUS  
 CN Poly[1,7-dicarbadodecaborane(12)-1,7-diylmethyleneoxy(1,4-dioxo-2-butene-1,4-diyl)oxymethylene], .alpha.-[[ (1-oxo-2-propenyl)oxy]methyl]-.omega.-[7-[[ (1-oxo-2-propenyl)oxy]methyl]-1,7-dicarbadodecaboran(12)-1-yl]-, (Z)-(9CI) (CA INDEX NAME)

PAGE 1-A



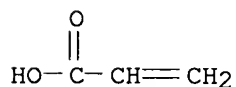
PAGE 1-B



RN 148092-10-8 HCAPLUS  
 CN 2-Butenedioic acid (2Z)-, polymer with 1,7-dicarbadoecaborane(12)-1,7-dimethanol, di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7  
 CMF C3 H4 O2

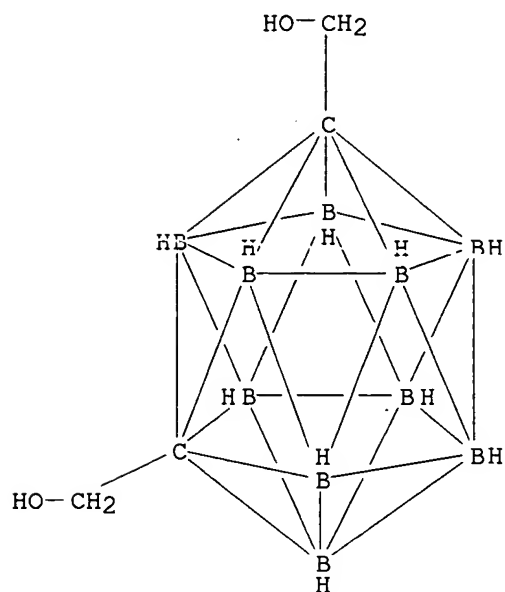


CM 2

CRN 162681-92-7  
 CMF (C4 H16 B10 O2 . C4 H4 O4)x  
 CCI PMS

CM 3

CRN 23924-78-9  
 CMF C4 H16 B10 O2

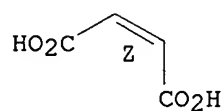


CM 4

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



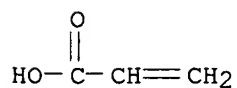
RN 148092-12-0 HCAPLUS

CN Butanedioic acid, methylene-, polymer with 1,7-dicarbadodecaborane(12)-1,7-dimethanol, di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2



CM 2

CRN 162993-32-0

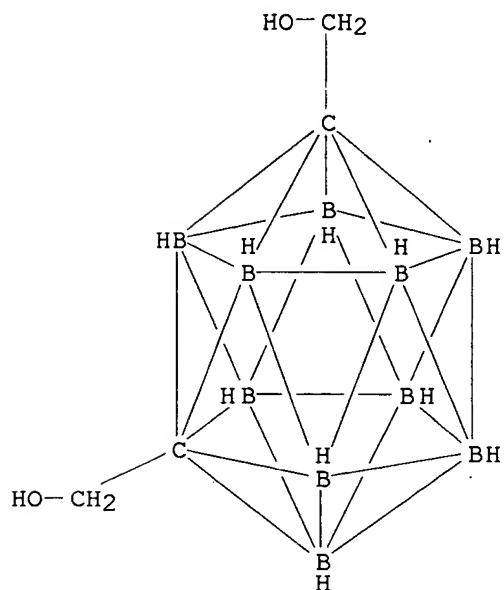
CMF (C5 H6 O4 . C4 H16 B10 O2)x

CCI PMS

CM 3

CRN 23924-78-9

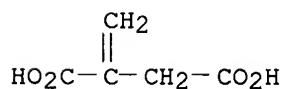
CMF C4 H16 B10 O2



CM 4

CRN 97-65-4

CMF C5 H6 O4



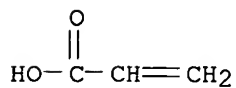
RN 148092-14-2 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,7-dicarbadodecaborane(12)-1,7-dimethanol, di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2



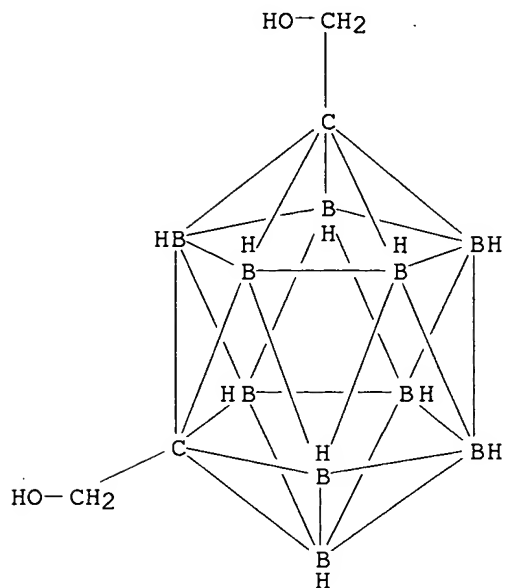
CM 2



CRN 30661-75-7  
 CMF (C8 H6 O4 . C4 H16 B10 O2)x  
 CCI PMS

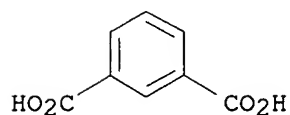
CM 3

CRN 23924-78-9  
 CMF C4 H16 B10 O2



CM 4

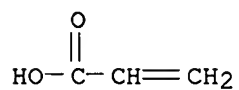
CRN 121-91-5  
 CMF C8 H6 O4



RN 148092-16-4 HCAPLUS  
 CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with  
 1,7-dicarbadoecaborane(12)-1,7-dimethanol, di-2-propenoate (9CI) (CA  
 INDEX NAME)

CM 1

CRN 79-10-7  
 CMF C3 H4 O2



CM 2

CRN 163148-55-8

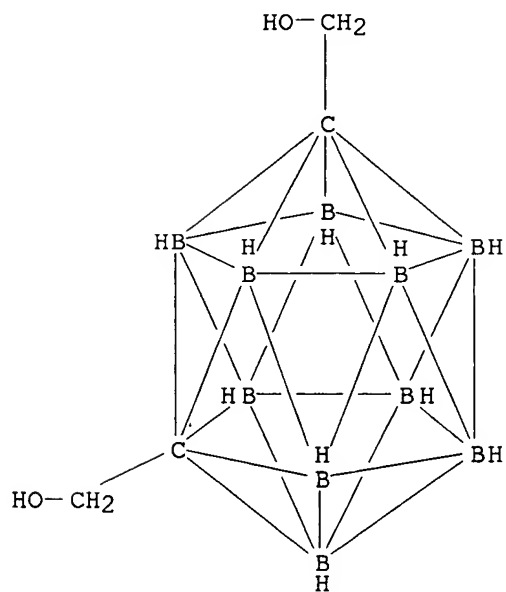
CMF (C10 H2 O6 . C4 H16 B10 O2):

CCI PMS

CM 3

CRN 23924-78-9

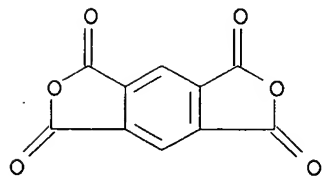
CMF C4 H16 B10 O2



CM 4

CRN 89-32-7

CMF C10 H2 O6



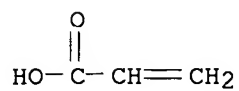
RN 148092-17-5 HCAPLUS

CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with

1,7-dicarbadoecaborane(12)-1,7-dimethanol, 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7  
CMF C3 H4 O2

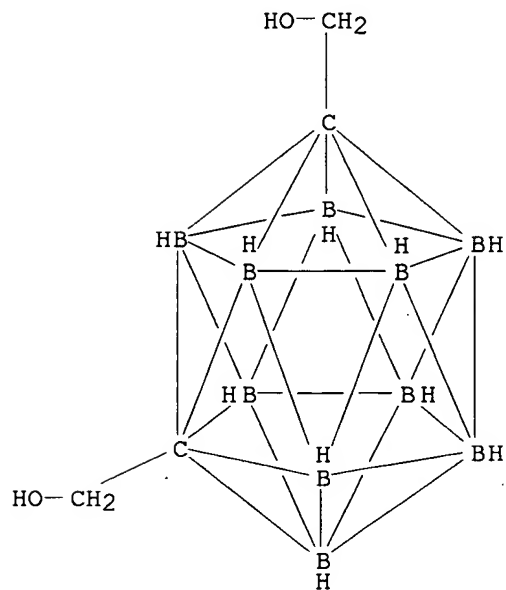


CM 2

CRN 163647-68-5  
CMF (C17 H6 O7 . C4 H16 B10 O2)x  
CCI PMS

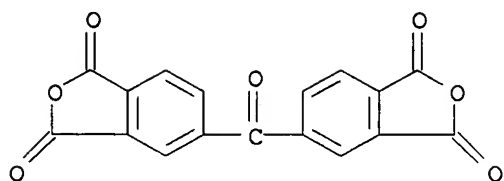
CM 3

CRN 23924-78-9  
CMF C4 H16 B10 O2



CM 4

CRN 2421-28-5  
CMF C17 H6 O7



L46 ANSWER 37 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1993:169781 HCAPLUS

DN 118:169781

TI Process and catalysts for producing styrenic copolymers

IN Tazaki, Toshinori; Machida, Shuji; Watanabe, Masami; Tomotsu, Norio; Kuramoto, Masahiko

PA Idemitsu Kosan Co., Ltd., Japan

SO Eur. Pat. Appl., 28 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 505972	A2	19920930	EP 1992-105027	19920324
	EP 505972	A3	19921223		
	EP 505972	B1	19970611		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	JP 04298510	A2	19921022	JP 1991-85739	19910327
	JP 2977930	B2	19991115		
	JP 04298511	A2	19921022	JP 1991-85740	19910327
	JP 04300906	A2	19921023	JP 1991-87300	19910328
	AT 154367	E	19970615	AT 1992-105027	19920324
PRAI	JP 1991-85739		19910327		
	JP 1991-85740		19910327		
	JP 1991-87300		19910328		

AB Copolymers with good heat resistance and mech. strength are prepd. by polymn. of styrenic monomers and monomers contg. polar groups or internally olefinic monomers using transition metal-coordination complex compd. (contg. cations and anions and metal-bonded radicals) catalysts.

IC ICM C08F212-04

ICS C08F004-60; C08F004-602

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 67

IT 107333-47-1 107333-50-6 135348-57-1

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for copolymn. of styrenic monomers)

IT 1109-15-5P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, with pentafluorophenyllithium)

IT 118611-99-7P

RL: PREP (Preparation)

(prepn. of, as catalysts for copolymn. of styrenic monomers)

IT 9003-54-7P, Acrylonitrile-styrene copolymer 9010-92-8P, Methacrylic acid-styrene copolymer 9011-13-6P, Maleic anhydride-styrene copolymer 24981-13-3P, Acrylamide-styrene copolymer 25034-86-0P, Methyl methacrylate-styrene copolymer 25066-97-1P, Ethyl acrylate-styrene

copolymer 25167-42-4P, Glycidyl methacrylate-styrene copolymer  
 25266-27-7P, Diethyl fumarate-styrene copolymer 25300-64-5P, Maleic  
 acid-styrene copolymer **25587-84-2P**, Dimethyl itaconate-styrene  
 copolymer 25767-47-9P, Butyl acrylate-styrene copolymer 26316-43-8P,  
 N-Phenylmaleimide-styrene copolymer 26812-73-7P 29226-76-4P,  
 Methacrylamide-styrene copolymer 29760-26-7P, N,N-Dimethylacrylamide-  
 styrene copolymer 30347-44-5P, Acenaphthylene-styrene copolymer  
 57350-81-9P, Maleic anhydride-p-methylstyrene copolymer 146899-16-3P  
 146899-17-4P

RL: **PREP (Preparation)**

(prepn. of, catalysts for)

IT **135348-57-1**

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for copolymn. of styrenic monomers)

RN 135348-57-1 HCAPLUS

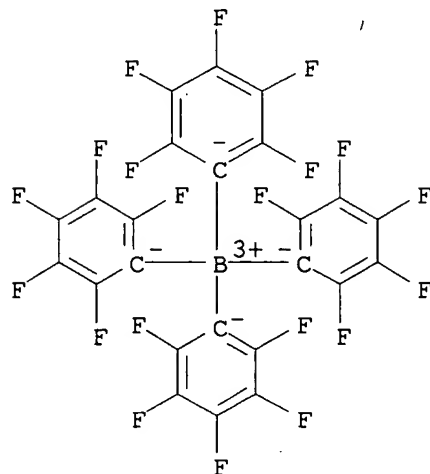
CN Ferrocenium, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47855-94-7

CMF C24 B F20

CCI CCS

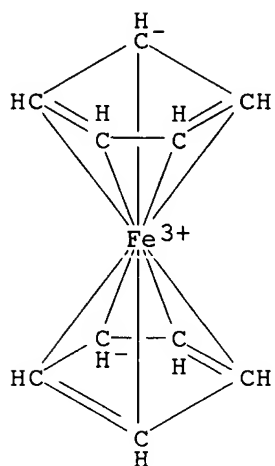


CM 2

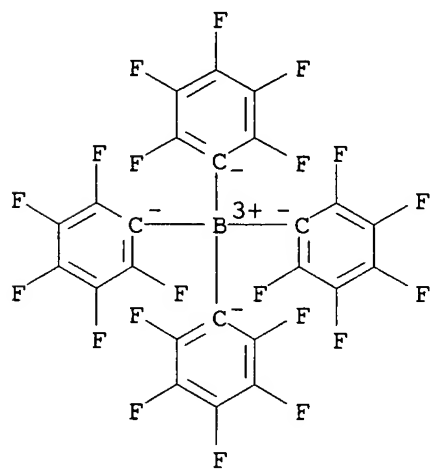
CRN 12125-80-3

CMF C10 H10 Fe

CCI CCS



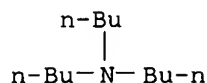
IT 118611-99-7P  
 RL: PREP (Preparation)  
 (prepn. of, as catalysts for copolymn. of styrenic monomers)  
 RN 118611-99-7 HCAPLUS  
 CN Borate(1-), tetrakis(pentafluorophenyl)-, hydrogen, compd. with  
 N,N-dibutyl-1-butanamine (1:1) (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 118611-98-6  
 CMF C24 B F20 . H  
 CCI CCS



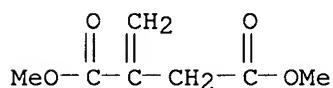
● H<sup>+</sup>

CM 2

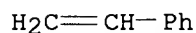
CRN 102-82-9  
CMF C12 H27 N



IT 25587-84-2P, Dimethyl itaconate-styrene copolymer  
RL: PREP (Preparation)  
(prepn. of, catalysts for)  
RN 25587-84-2 HCAPLUS  
CN Butanedioic acid, methylene-, dimethyl ester, polymer with ethenylbenzene  
(9CI) (CA INDEX NAME)  
CM 1  
CRN 617-52-7  
CMF C7 H10 O4



CM 2  
CRN 100-42-5  
CMF C8 H8



L46 ANSWER 38 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1991:657561 HCAPLUS  
DN 115:257561  
TI Preparation and uses of inorganic-organic fireproofing polyols  
IN Blount, David H.  
PA USA  
SO U.S., 10 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5034423	A	19910723	US 1989-419513	19891010
PRAI	US 1989-419513		19891010		
AB	Inorg.-org. fireproofing polyols are prep'd. by mixing and reacting an epoxy comp'd. with a comp'd. contg. reactive H and acidic B comp'd. in the presence of an epoxy catalyss and a basic salt-forming comp'd. The polyols are useful in the manuf. of polyesters, polyamides, and polyurethanes and				

their deriv. products. Thus, propylene oxide 100, powd. dextrose 2.5, powd. boric acid 20, and 75% of H<sub>3</sub>PO<sub>4</sub> 100 parts were reacted under agitation for 1-8 h to form a fireproofing polyol. The polyol was then reacted with inorg. polyisocyanate to form a rigid fireproof polyurethane foam.

IC ICM C08J009-14

NCL 521107000

CC 37-6 (**Plastics** Manufacture and Processing)

Section cross-reference(s): 38

IT Urethane polymers, preparation

RL: **PREP (Preparation)**

(cellular, manuf. of fireproof, inorg.-org. polyols in)

IT Polyamides, preparation

Polyesters, preparation

RL: **PREP (Preparation)**

(manuf. of fireproof, inorg.-org. polyols in)

IT Glycols, compounds

RL: **PREP (Preparation)**

(compds., reaction products with epoxy compds. and acidic boron, inorg.-org. fireproofing polyols, prepn. and uses of)

IT Soybean oil

RL: **PREP (Preparation)**

(epoxidized, reaction products with reactive hydrogen-contg. compd. and acidic boron compd., inorg.-org. fireproofing polyols, prepn. and uses of)

IT 822-06-0D, polymers with inorg.-org. fireproofing polyol 9016-87-9D,

PAPI 27, polymers with inorg.-org. fireproofing polyol 26471-62-5D,

polymers with inorg.-org. fireproofing polyol **137592-82-6**

RL: **USES (Uses)**

(cellular, manuf. of fireproof)

IT **39383-70-5D**, isocyanate-terminated, polymers with fireproofing polyol

RL: **USES (Uses)**

(cellular, prepn. of fireproof)

IT 85-43-8DP, Tetrahydrophthalic anhydride, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds.

85-44-9DP, 1,3-Isobenzofurandione, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds.

**97-65-4DP**, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds. 108-31-6DP,

2,5-Furandione, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds. 108-55-4DP, Glutaric

anhydride, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds. 110-15-6DP, Succinic

acid, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds. 110-16-7DP, 2-Butenedioic acid (Z)-,

reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds. 110-17-8DP, 2-Butenedioic acid (E)-,

reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds. 111-20-6DP, Decanedioic acid, reaction products with epoxy

compds. and reactive hydrogen-contg. compd. and acidic boron compds.

112-80-1DP, 9-Octadecenoic acid (Z)-, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds. 121-91-5DP,

1,3-Benzenedicarboxylic acid, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds. 123-99-9DP,

Azelaic acid, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds. 124-04-9DP, Hexanedioic

acid, reaction products with epoxy compds. and reactive hydrogen-contg.



compd. and acidic boron compds. 505-48-6DP, Suberic acid, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds. 528-44-9DP, 1,2,4-Benzenetricarboxylic acid, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds.

**RL: PREP (Preparation)**

(fireproofing polyester polyols, prepn. and uses of)

IT 50-70-4DP, Sorbitol, reaction products with epoxy compd. and acidic boron compd. 50-99-7DP, Dextrose, reaction products with epoxy compd. and acidic boron compd. 56-81-5DP, 1,2,3-Propanetriol, reaction products with epoxy compd. and acidic boron compd. 57-48-7DP, Fructose, reaction products with epoxy compd. and acidic boron compd. 57-50-1DP, Sucrose, reaction products with epoxy compd. and acidic boron compd. 57-55-6DP, 1,2-Propanediol, reaction products with epoxy compd. and acidic boron compd. 62-53-3DP, Aniline, reaction products with epoxy compd. and acidic boron compd. 63-42-3DP, Lactose, reaction products with epoxy compd. and acidic boron compd. 64-17-5DP, Ethyl alcohol, reaction products with epoxy compd. and acidic boron compd. 67-56-1DP, Methanol, reaction products with epoxy compd. and acidic boron compd. 69-65-8DP, Mannitol, reaction products with epoxy compd. and acidic boron compd. 75-21-8DP, Oxirane, reaction products with reactive hydrogen-contg. compd. and acidic boron compd. 77-85-0DP, Trimethylolethane, reaction products with epoxy compd. and acidic boron compd. 77-99-6DP, Trimethylol propane, reaction products with epoxy compd. and acidic boron compd. 80-05-7DP, reaction products with epoxy compd. and acidic boron compd. 96-09-3DP, Styrene oxide, reaction products with reactive hydrogen-contg. compd. and acidic boron compd. 97-30-3DP, reaction products with epoxy compd. and acidic boron compd. 106-69-4DP, Hexane 1,2,6-triol, reaction products with epoxy compd. and acidic boron compd. 106-89-8DP, reaction products with reactive hydrogen-contg. compd. and acidic boron compd. 107-21-1DP, 1,2-Ethanediol, reaction products with epoxy compd. and acidic boron compd. 109-99-9DP, Tetrahydrofuran, reaction products with reactive hydrogen-contg. compd. and acidic boron compd. 111-46-6DP, Diethylene glycol, reaction products with epoxy compd. and acidic boron compd. 115-77-5DP, reaction products with epoxy compd. and acidic boron compd. 141-43-5DP, Ethanolamine, reaction products with epoxy compd. and acidic boron compd. 556-48-9DP, Quinitol, reaction products with epoxy compd. and acidic boron compd. 598-09-4DP, Methyl epichlorohydrin, reaction products with reactive hydrogen-contg. compd. and acidic boron compd. 2163-42-0DP, 2-Methyl-1,3-propanediol, reaction products with epoxy compd. and acidic boron compd. 3068-00-6DP, Butane 1,2,4-triol, reaction products with epoxy compd. and acidic boron compd. 3083-25-8DP, Trichlorobutylene oxide, reaction products with reactive hydrogen-contg. compd. and acidic boron compd. 3132-64-7DP, Epibromohydrin, reaction products with reactive hydrogen-contg. compd. and acidic boron compd. 3266-23-7DP, reaction products with reactive hydrogen-contg. compd. and acidic boron compd. 7732-18-5DP, Water, reaction products with epoxy compd. and acidic boron compd. 25265-71-8DP, Dipropylene glycol, reaction products with epoxy compd. and acidic boron compd. 25265-75-2DP, Butylene glycol, reaction products with epoxy compd. and acidic boron compd. 26249-20-7DP, Butylene oxide, reaction products with reactive hydrogen-contg. compd. and acidic boron compd. 41556-02-9DP, reaction products with reactive hydrogen-contg. compd. and acidic boron compd. 106590-75-4DP, reaction products with reactive hydrogen-contg. compd. and acidic boron compd. 137407-64-8DP, reaction products with reactive hydrogen-contg. compd. and acidic boron compd.

**RL: PREP (Preparation)**

(fireproofing polyols, inorg.-org., prepn. and uses of)

IT 79-10-7DP, 2-Propenoic acid, reaction products with epoxy compd. and reactive hydrogen-contg. compd. and acidic boron compd. and carboxylic acid 79-41-4DP, reaction products with epoxy compd. and reactive hydrogen-contg. compd. and acidic boron compd. and carboxylic acid 80-62-6DP, Methyl methacrylate, reaction products with epoxy compd. and reactive hydrogen-contg. compd. and acidic boron compd. and carboxylic acid 100-42-5DP, Styrene, reaction products with epoxy compd. and reactive hydrogen-contg. compd. and acidic boron compd. and carboxylic acid 107-13-1DP, 2-Propenenitrile, reaction products with epoxy compd. and reactive hydrogen-contg. compd. and acidic boron compd. and carboxylic acid 108-05-4DP, Acetic acid ethenyl ester, reaction products with epoxy compd. and reactive hydrogen-contg. compd. and acidic boron compd. and carboxylic acid 126-98-7DP, Methacrylonitrile, reaction products with epoxy compd. and reactive hydrogen-contg. compd. and acidic boron compd. and carboxylic acid 1321-74-0DP, Divinyl benzene, reaction products with epoxy compd. and reactive hydrogen-contg. compd. and acidic boron compd. and carboxylic acid 25013-15-4DP, Vinyl toluene, reaction products with epoxy compd. and reactive hydrogen-contg. compd. and acidic boron compd. and carboxylic acid

RL: **PREP (Preparation)**

(prepn. of fire-resistant)

IT 9003-11-6DP, Ethylene oxide-propylene oxide copolymer, polymers with fireproofing polyol 12624-36-1DP, Vircol-82, polymers with fireproofing polyol **137317-38-5DP**, polymers with fireproofing polyol

RL: **PREP (Preparation)**

(prepn. of fireproof)

IT **137592-82-6**

RL: **USES (Uses)**

(cellular, manuf. of fireproof)

RN 137592-82-6 HCAPLUS

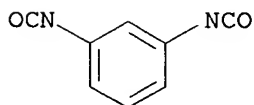
CN Oxirane, methyl-, polymer with oxirane, ester with boric acid (H3BO3), polymer with 1,3-diisocyanatomethylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 26471-62-5

CMF C9 H6 N2 O2

CCI IDS



D1-Me

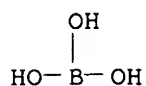
CM 2

CRN 129069-74-5

CMF (C3 H6 O . C2 H4 O)x . x B H3 O3

CM 3

CRN 10043-35-3  
CMF B H3 O3

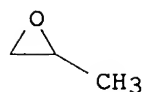


CM 4

CRN 9003-11-6  
CMF (C3 H6 O . C2 H4 O)x  
CCI PMS

CM 5

CRN 75-56-9  
CMF C3 H6 O



CM 6

CRN 75-21-8  
CMF C2 H4 O



IT **39383-70-5D**, isocyanate-terminated, polymers with fireproofing polyol

RL: USES (Uses)

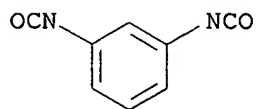
(cellular, prepn. of fireproof)

RN 39383-70-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 1,3-diisocyanatomethylbenzene (9CI) (CA INDEX NAME)

CM 1

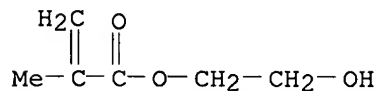
CRN 26471-62-5  
CMF C9 H6 N2 O2  
CCI IDS



D1-Me

CM 2

CRN 868-77-9  
CMF C6 H10 O3



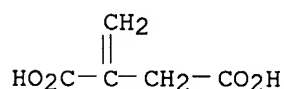
IT 97-65-4DP, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds.

RL: PREP (Preparation)

(fireproofing polyester polyols, prepn. and uses of)

RN 97-65-4 HCAPLUS

CN Butanedioic acid, methylene- (9CI) (CA INDEX NAME)



IT 137317-38-5DP, polymers with fireproofing polyol

RL: PREP (Preparation)

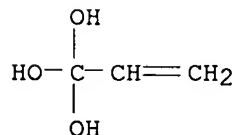
(prepn. of fireproof)

RN 137317-38-5 HCAPLUS

CN 2-Propene-1,1,1-triol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 137317-37-4  
CMF C3 H6 O3

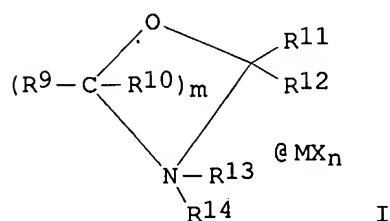


L46 ANSWER 39 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1991:584581 HCAPLUS

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

DN 115:184581  
 TI Heat-latent, cationic polymerization initiators and resin  
**compositions** containing the same  
 IN Nakano, Shinji; Urano, Satoshi  
 PA Nippon Paint Co., Ltd., Japan  
 SO Eur. Pat. Appl., 21 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 401770	A2	19901212	EP 1990-110649	19900605
	EP 401770	A3	19921209		
	EP 401770	B1	19970502		
	R: DE, FR, GB				
	JP 03011044	A2	19910118	JP 1989-142541	19890605
	JP 07037426	B4	19950426		
	JP 03056470	A2	19910312	JP 1989-191659	19890724
	JP 07042277	B4	19950510		
	JP 03115262	A2	19910516	JP 1989-244681	19890919
	JP 06099391	B4	19941207		
	AU 9056126	A1	19901206	AU 1990-56126	19900531
	AU 627316	B2	19920820		
	CA 2018173	AA	19901205	CA 1990-2018173	19900604
	CA 2018173	C	19980630		
	US 5132377	A	19920721	US 1990-532716	19900604
	EP 651002	A2	19950503	EP 1995-100720	19900605
	EP 651002	A3	19951206		
	R: DE, FR, GB				
	AU 9217227	A1	19920813	AU 1992-17227	19920528
	AU 640085	B2	19930812		
	AU 9217228	A1	19920813	AU 1992-17228	19920528
	AU 640086	B2	19930812		
PRAI	JP 1989-142541		19890605		
	JP 1989-191659		19890724		
	JP 1989-244681		19890919		
	EP 1990-110649		19900605		
OS	MARPAT 115:184581				
GI					



AB The heat-curable title compns. contain polymn. initiators  
 R1CR4R5CN+R6R7R8.MXn, R1CR4R5R2.MXn, or I [R1 = 0-3 halo-, hydrocarbyl-,  
 or functional group-substituted Ph; R2 = 0-2 halo-, hydrocarbyl-, or

functional group-substituted pyridine; R4, R9-R12 = H, halo, or alkyl; R5 = halo or alkyl; R6-R8, R13, R14 = (functional group-substituted) hydrocarbyl; M = As, Sb, B, or P; X = halo; m = 1-4]. Thus, a mixt. of 90 parts acrylic polymer (prepd. from Me methacrylate 23.11, styrene 20.00, glycidyl methacrylate 25.00, Bu acrylate 2.59, iso-Bu methacrylate 1.00, and 2-hydroxyethyl methacrylate 12.42) and 1 part 2-(4-methylphenyl)-3,3-dimethyl-1,3-oxazolidinium hexafluoroantimonate had good **storage** ability (no viscosity change after 2 wk at 40.degree.) and good curability (film cured at 120.degree. had no change after 100 rubbing test with MEK.).

IC ICM C08J003-24

ICS C08K005-19; C08G085-00

CC 37-6 (Plastics Manufacture and Processing)

IT Quaternary ammonium compounds, preparation

RL: **PREP (Preparation)**

(polymn. initiators, prepn. of, for heat-curable stock-stable compn.)

IT Polymerization catalysts

(quaternary ammonium compds., prepn. of, for heat-curable stock-stable compn.)

IT 9003-08-1 25035-89-6 25068-38-6 25086-25-3, ERL-4206

52004-97-4 52825-60-2 54115-51-4 75944-16-0

95918-32-4, Placel 308 125321-39-3 126843-37-6

126906-17-0 126906-18-1 136651-24-6

RL: USES (Uses)

(polymn. initiators for, quaternary ammonium compds. as)

IT 136608-55-4P 136608-56-5P 136608-57-6P 136608-59-8P 136608-61-2P

136608-62-3P 136608-63-4P 136608-64-5P 136608-66-7P

136608-68-9P 136608-70-3P 136608-72-5P 136608-74-7P 136608-75-8P

136608-76-9P 136608-77-0P 136608-79-2P 136608-81-6P

136608-83-8P 136608-85-0P 136608-86-1P 136608-88-3P 136608-90-7P

136608-92-9P 136608-94-1P 136608-96-3P 136608-98-5P 136609-00-2P

RL: **PREP (Preparation)**

(polymn. initiators, prepn. of, for heat-curable stock-stable compn.)

IT 25035-89-6 52004-97-4 52825-60-2

75944-16-0 126843-37-6 126906-17-0

126906-18-1 136651-24-6

RL: USES (Uses)

(polymn. initiators for, quaternary ammonium compds. as)

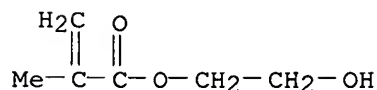
RN 25035-89-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

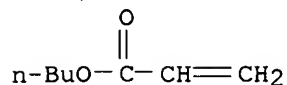
CRN 868-77-9

CMF C6 H10 O3



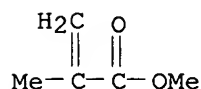
CM 2

CRN 141-32-2  
CMF C7 H12 O2



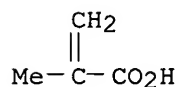
CM 3

CRN 80-62-6  
CMF C5 H8 O2



CM 4

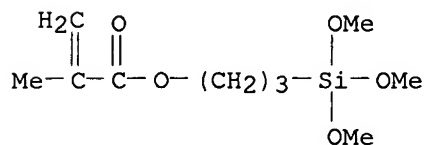
CRN 79-41-4  
CMF C4 H6 O2



RN 52004-97-4 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, homopolymer  
(9CI) (CA INDEX NAME)

CM 1

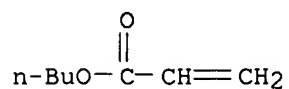
CRN 2530-85-0  
CMF C10 H20 O5 Si



RN 52825-60-2 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl  
2-propenoate, ethenylbenzene, 2-methylpropyl 2-methyl-2-propenoate and  
oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

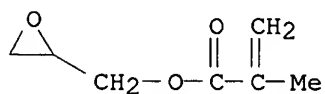
CM 1

CRN 141-32-2  
CMF C7 H12 O2



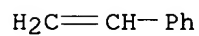
CM 2

CRN 106-91-2  
CMF C7 H10 O3



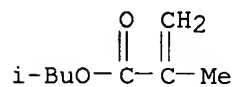
CM 3

CRN 100-42-5  
CMF C8 H8



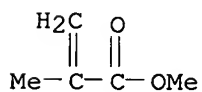
CM 4

CRN 97-86-9  
CMF C8 H14 O2



CM 5

CRN 80-62-6  
CMF C5 H8 O2



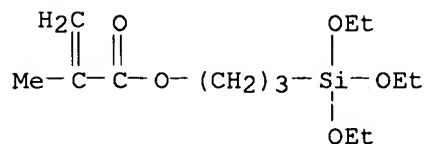
RN 75944-16-0 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with  
3-(triethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)



CM 1

CRN 21142-29-0

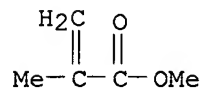
CMF C13 H26 O5 Si



CM 2

CRN 80-62-6

CMF C5 H8 O2



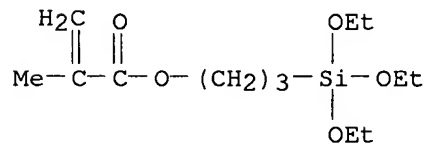
RN 126843-37-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(triethoxysilyl)propyl ester, homopolymer  
(9CI) (CA INDEX NAME)

CM 1

CRN 21142-29-0

CMF C13 H26 O5 Si



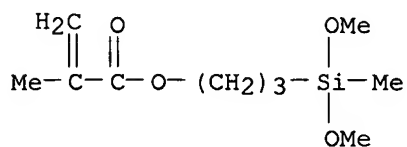
RN 126906-17-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester,  
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9

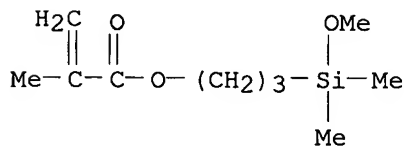
CMF C10 H20 O4 Si



RN 126906-18-1 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 3-(methoxydimethylsilyl)propyl ester,  
 homopolymer (9CI) (CA INDEX NAME)

CM 1

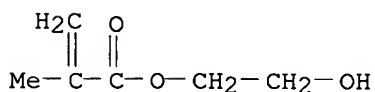
CRN 66753-64-8  
 CMF C10 H20 O3 Si



RN 136651-24-6 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl  
 2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate, 2-methylpropyl  
 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA  
 INDEX NAME)

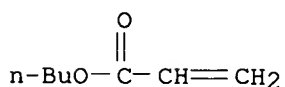
CM 1

CRN 868-77-9  
 CMF C6 H10 O3



CM 2

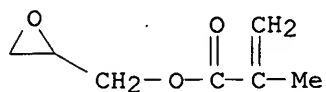
CRN 141-32-2  
 CMF C7 H12 O2



CM 3

CRN 106-91-2

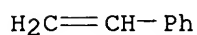
CMF C7 H10 O3



CM 4

CRN 100-42-5

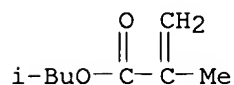
CMF C8 H8



CM 5

CRN 97-86-9

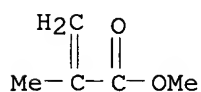
CMF C8 H14 O2



CM 6

CRN 80-62-6

CMF C5 H8 O2



IT 136608-63-4P 136608-76-9P

RL: PREP (Preparation)

(polymn. initiators, prepn. of, for heat-curable stock-stable compn.)

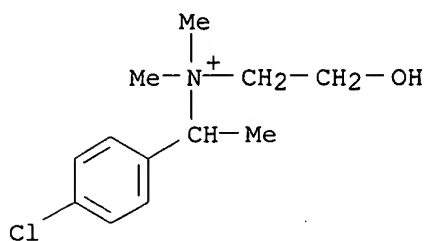
RN 136608-63-4 HCAPLUS

CN Benzenemethanaminium, 4-chloro-N-(2-hydroxyethyl)-N,N,.alpha.-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 136608-58-7

CMF C12 H19 Cl N O

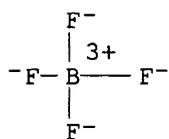


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



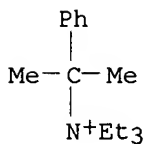
RN 136608-76-9 HCAPLUS

CN Benzenemethanaminium, N,N,N-triethyl-.alpha.,.alpha.-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 136608-67-8

CMF C15 H26 N

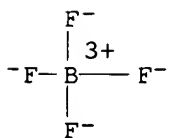


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



L46 ANSWER 40 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1991:123918 HCAPLUS

DN 114:123918

TI Thermosetting resin **compositions** with good **storage**  
stability

IN Endo, Takeshi; Tokuda, Hiroyuki; Hosoda, Atsushi; Tashiro, Namyuki

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

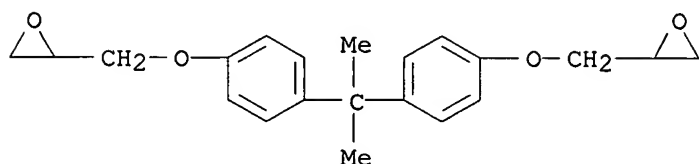
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02227419	A2	19900910	JP 1989-47378	19890228
PRAI	JP 1989-47378		19890228		
AB	The title compns. giving impact-resistant cured products with good flexibility contain onium salts of polymers and cationically polymerizable org. compds. Thus, 100 parts bisphenol A diglycidyl ether was mixed with 25 parts 90:10 (mol) butadiene-p-vinylbenzyltetramethylenesulfonim hexafluoroantimonate copolymer to give a thermosetting <b>compn.</b> , which was spread on tinplates at 40-.mu.m thickness, then heated at 160.degree. for 30 min to give test pieces with good adhesion and resistance to Me2CO and DMF, which showed pencil hardness H, du Pont impact resistance 45 kg-cm the surface, and 35 kg-cm the reverse side.				
IC	ICM C08G059-40				
CC	37-6 ( <b>Plastics</b> Manufacture and Processing)				
ST	thermosetting resin <b>compn storage</b> stable; onium salt polymer thermosetting <b>compn</b> ; impact resistant thermosetting resin <b>compn</b>				
IT	Epoxy resins, preparation				
	RL: <b>PREP (Preparation)</b> (onium salts-contg., solvent- and impact-resistant)				
IT	132558-05-5 132558-06-6 132558-07-7 132558-10-2 132558-12-4 132558-13-5 132558-15-7 132558-16-8 132558-17-9 132558-18-0 132558-19-1 132558-20-4 132558-21-5 132588-30-8 132588-31-9				
	RL: USES (Uses) (crosslinked, solvent- and impact-resistant)				
IT	132538-47-7 132538-50-2 132538-53-5 132538-56-8 132538-59-1 132538-60-4 132538-61-5 132538-62-6 132558-22-6 132558-23-7 132558-24-8 132558-25-9 132558-26-0 132558-27-1 132558-28-2				
	RL: USES (Uses) (thermosetting compns., with bisphenol A diglycidyl ether, with long pot life)				
IT	1675-54-3, Bisphenol A diglycidyl ether				
	RL: USES (Uses) (thermosetting resin compns. contg., with onium salt copolymers, with long pot life)				
IT	132558-05-5 132558-06-6 132558-07-7 132558-10-2 132558-12-4 132558-20-4 132558-21-5				
	RL: USES (Uses) (crosslinked, solvent- and impact-resistant)				
RN	132558-05-5 HCAPLUS				
CN	Thiophenium, 1-[(4-ethenylphenyl)methyl]tetrahydro-, (OC-6-11)-				

hexafluoroantimonate(1-), polymer with butyl 2-propenoate and  
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]  
(9CI) (CA INDEX NAME)

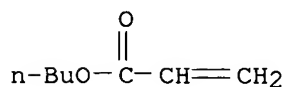
CM 1

CRN 1675-54-3  
CMF C21 H24 O4



CM 2

CRN 141-32-2  
CMF C7 H12 O2

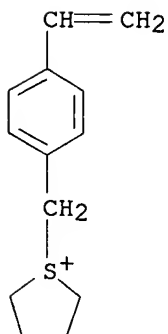


CM 3

CRN 106357-94-2  
CMF C13 H17 S . F6 Sb

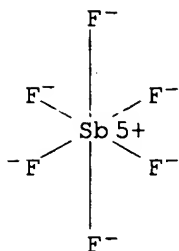
CM 4

CRN 106311-34-6  
CMF C13 H17 S



CM 5

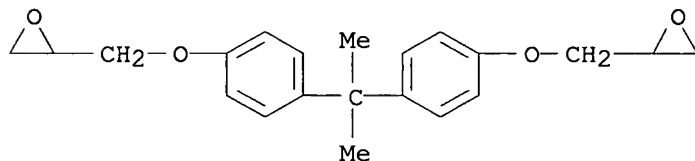
CRN 17111-95-4  
CMF F6 Sb  
CCI CCS



RN 132558-06-6 HCAPLUS  
CN Pyridinium, 4-cyano-1-[(4-ethenylphenyl)methyl]-, (OC-6-11)-hexafluoroantimonate(1-), polymer with butyl 2-propenoate and 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

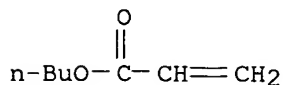
CM 1

CRN 1675-54-3  
CMF C21 H24 O4



CM 2

CRN 141-32-2  
CMF C7 H12 O2



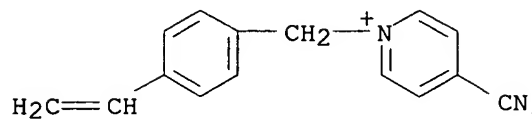
CM 3

CRN 118950-30-4  
CMF C15 H13 N2 . F6 Sb

CM 4

CRN 115258-20-3

CMF C15 H13 N2

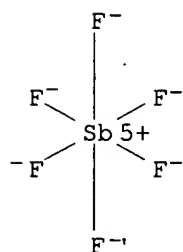


CM 5

CRN 17111-95-4

CMF F6 Sb

CCI CCS



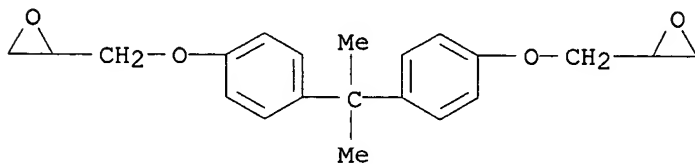
RN 132558-07-7 HCAPLUS

CN Pyrrolidinium, 1-[(4-ethenylphenyl)methyl]-1-methyl-, (OC-6-11)-hexafluoroantimonate(1-), polymer with butyl 2-propenoate and 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

CRN 1675-54-3

CMF C21 H24 O4

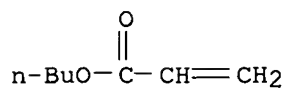


CM 2

CRN 141-32-2

CMF C7 H12 O2





CM 3

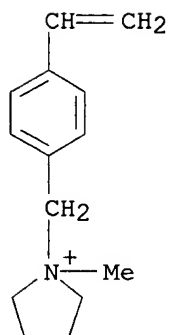
CRN 118950-29-1

CMF C14 H20 N . F6 Sb

CM 4

CRN 118950-28-0

CMF C14 H20 N

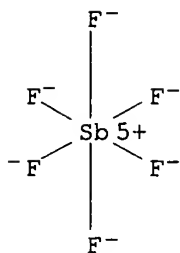


CM 5

CRN 17111-95-4

CMF F6 Sb

CCI CCS

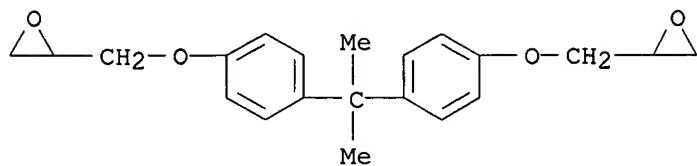


RN 132558-10-2 HCAPLUS

CN Antimonate(1-), hexafluoro-, (OC-6-11)-, hydrogen, compd. with 1-[(4-ethenylphenyl)methyl]-1H-imidazole-4,5-dicarbonitrile (1:1), polymer with butyl 2-propenoate and 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

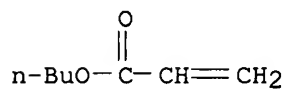
CM 1

CRN 1675-54-3  
CMF C21 H24 O4



CM 2

CRN 141-32-2  
CMF C7 H12 O2

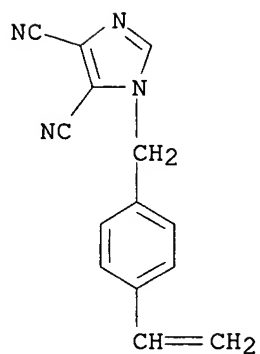


CM 3

CRN 132558-09-9  
CMF C14 H10 N4 . F6 Sb . H

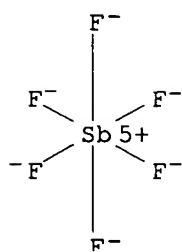
CM 4

CRN 115597-75-6  
CMF C14 H10 N4



CM 5

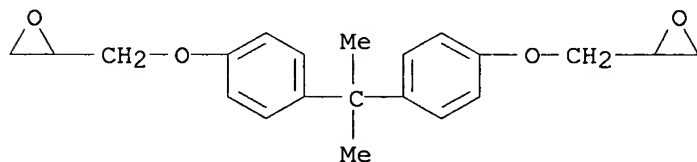
CRN 16950-06-4  
CMF F6 Sb . H  
CCI CCS



RN 132558-12-4 HCAPLUS  
 CN Thiophenium, 1-[(4-ethenylphenyl)methyl]tetrahydro-, tetrafluoroborate(1-), polymer with 1,3-butadiene and 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

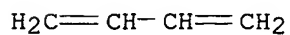
CM 1

CRN 1675-54-3  
 CMF C21 H24 O4



CM 2

CRN 106-99-0  
 CMF C4 H6

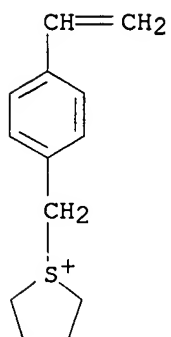


CM 3

CRN 132558-11-3  
 CMF C13 H17 S . B F4

CM 4

CRN 106311-34-6  
 CMF C13 H17 S

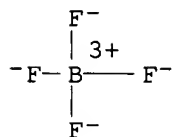


CM 5

CRN 14874-70-5

CMF B F4

CCI CCS



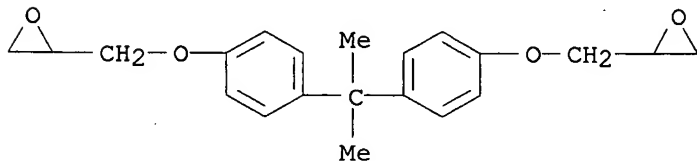
RN 132558-20-4 HCAPLUS

CN Thiophenium, 1-[(4-ethenylphenyl)methyl]tetrahydro-, (OC-6-11)-  
hexafluoroantimonate(1-), polymer with butyl 2-propenoate,  
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane] and  
2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 1675-54-3

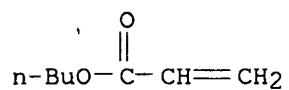
CMF C21 H24 O4



CM 2

CRN 141-32-2

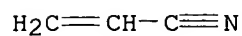
CMF C7 H12 O2



CM 3

CRN 107-13-1

CMF C3 H3 N



CM 4

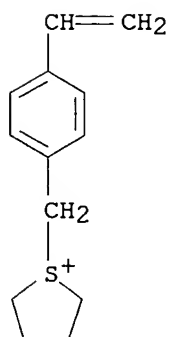
CRN 106357-94-2

CMF C13 H17 S . F6 Sb

CM 5

CRN 106311-34-6

CMF C13 H17 S

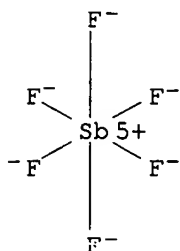


CM 6

CRN 17111-95-4

CMF F6 Sb

CCI CCS



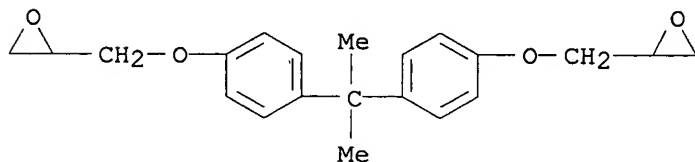
RN 132558-21-5 HCAPLUS

CN Thiophenium, 1-[(4-ethenylphenyl)methyl]tetrahydro-, (OC-6-11)-hexafluoroantimonate(1-), polymer with 1,3-butadiene, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane] and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 1675-54-3

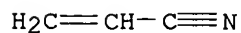
CMF C21 H24 O4



CM 2

CRN 107-13-1

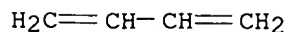
CMF C3 H3 N



CM 3

CRN 106-99-0

CMF C4 H6



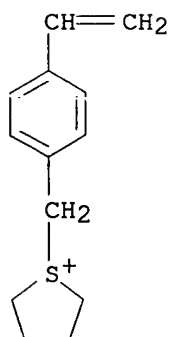
CM 4

CRN 106357-94-2

CMF C13 H17 S . F6 Sb

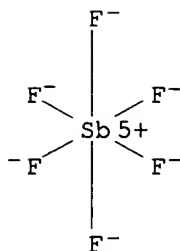
CM 5

CRN 106311-34-6  
CMF C13 H17 S



CM 6

CRN 17111-95-4  
CMF F6 Sb  
CCI CCS



IT 132538-61-5 132538-62-6 132558-22-6  
132558-23-7 132558-24-8 132558-25-9  
132558-26-0

RL: USES (Uses)

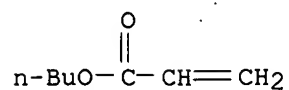
(thermosetting compns., with bisphenol A diglycidyl ether, with long  
pot life)

RN 132538-61-5 HCAPLUS

CN Thiophenium, 1-[(4-ethenylphenyl)methyl]tetrahydro-, (OC-6-11)-  
hexafluoroantimonate(1-), polymer with butyl 2-propenoate and  
2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

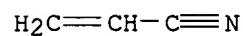
CRN 141-32-2  
CMF C7 H12 O2



CM 2

CRN 107-13-1

CMF C3 H3 N



CM 3

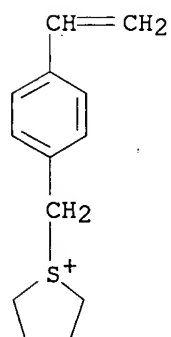
CRN 106357-94-2

CMF C13 H17 S . F6 Sb

CM 4

CRN 106311-34-6

CMF C13 H17 S



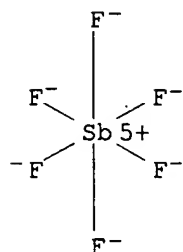
CM 5

CRN 17111-95-4

CMF F6 Sb

CCI CCS

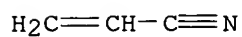




RN 132538-62-6 HCAPLUS  
 CN Thiophenium, 1-[(4-ethenylphenyl)methyl]tetrahydro-, (OC-6-11)-  
 hexafluoroantimonate(1-), polymer with 1,3-butadiene and 2-propenenitrile  
 (9CI) (CA INDEX NAME)

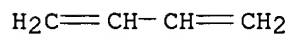
CM 1

CRN 107-13-1  
 CMF C3 H3 N



CM 2

CRN 106-99-0  
 CMF C4 H6

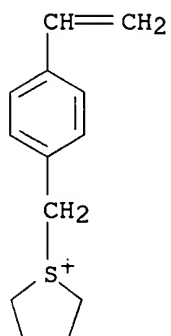


CM 3

CRN 106357-94-2  
 CMF C13 H17 S . F6 Sb

CM 4

CRN 106311-34-6  
 CMF C13 H17 S

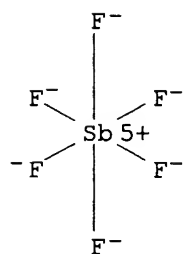


CM 5

CRN 17111-95-4

CMF F6 Sb

CCI CCS



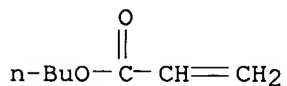
RN 132558-22-6 HCAPLUS

CN Thiophenium, 1-[(4-ethenylphenyl)methyl]tetrahydro-, (OC-6-11)-hexafluoroantimonate(1-), polymer with butyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2

CMF C7 H12 O2



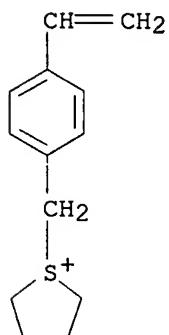
CM 2

CRN 106357-94-2

CMF C13 H17 S . F6 Sb

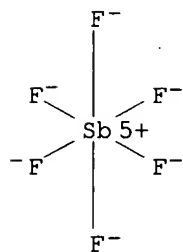
CM 3

CRN 106311-34-6  
CMF C13 H17 S



CM 4

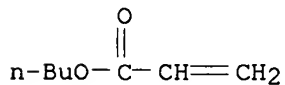
CRN 17111-95-4  
CMF F6 Sb  
CCI CCS



RN 132558-23-7 HCAPLUS  
CN Pyridinium, 4-cyano-1-[(4-ethenylphenyl)methyl]-, (OC-6-11)-hexafluoroantimonate(1-), polymer with butyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2  
CMF C7 H12 O2

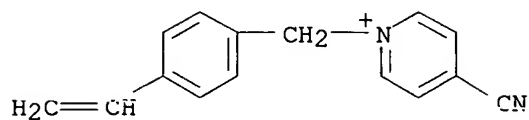


CM 2

CRN 118950-30-4  
CMF C15 H13 N2 . F6 Sb

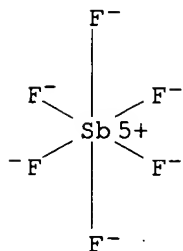
CM 3

CRN 115258-20-3  
CMF C15 H13 N2



CM 4

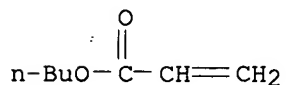
CRN 17111-95-4  
CMF F6 Sb  
CCI CCS



RN 132558-24-8 HCAPLUS  
CN Pyrrolidinium, 1-[(4-ethenylphenyl)methyl]-1-methyl-, (OC-6-11)-hexafluoroantimonate(1-), polymer with butyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2  
CMF C7 H12 O2

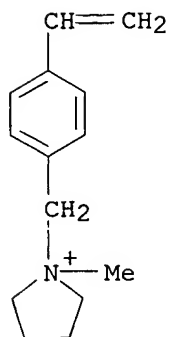


CM 2

CRN 118950-29-1  
CMF C14 H20 N . F6 Sb

CM 3

CRN 118950-28-0  
CMF C14 H20 N

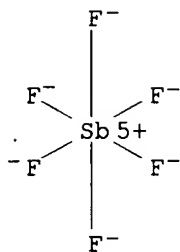


CM 4

CRN 17111-95-4

CMF F6 Sb

CCI CCS



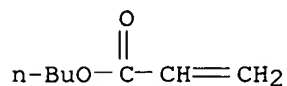
RN 132558-25-9 HCAPLUS

CN Antimonate(1-), hexafluoro-, (OC-6-11)-, hydrogen, compd. with  
1-[(4-ethenylphenyl)methyl]-1H-imidazole-4,5-dicarbonitrile, polymer with  
butyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2

CMF C7 H12 O2



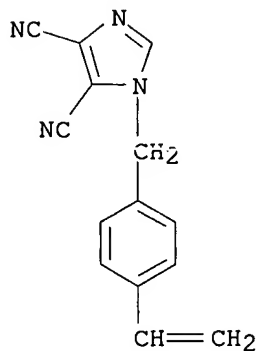
CM 2

CRN 132558-09-9

CMF C14 H10 N4 . F6 Sb . H

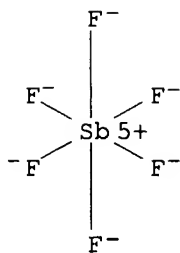
CM 3

CRN 115597-75-6  
CMF C14 H10 N4



CM 4

CRN 16950-06-4  
CMF F6 Sb . H  
CCI CCS

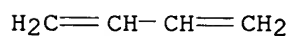


● H<sup>+</sup>

RN 132558-26-0 HCAPLUS  
CN Thiophenium, 1-[(4-ethenylphenyl)methyl]tetrahydro-, tetrafluoroborate(1-), polymer with 1,3-butadiene (9CI) (CA INDEX NAME)

CM 1

CRN 106-99-0  
CMF C4 H6

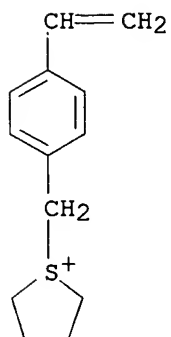


CM 2

CRN 132558-11-3  
CMF C13 H17 S . B F4

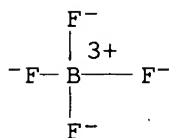
CM 3

CRN 106311-34-6  
CMF C13 H17 S



CM 4

CRN 14874-70-5  
CMF B F4  
CCI CCS

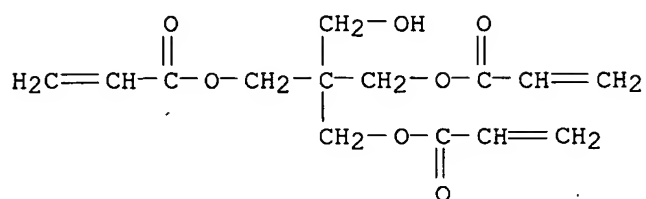


L46 ANSWER 41 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1991:7428 HCAPLUS  
DN 114:7428  
TI Sulfonium salt photopolymerization catalysts and curable  
compositions containing them  
IN Endo, Takeshi; Kawakami, Shigenao; Sakai, Toshito; Ito, Naoo  
PA Koei Chemical Industry Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02178303	A2	19900711	JP 1988-333973	19881229
	JP 2742594	B2	19980422		
PRAI	JP 1988-333973		19881229		
OS	MARPAT 114:7428				
GI	For diagram(s), see printed CA Issue.				

- AB Sulfonium salts I (R = H, halo, NO<sub>2</sub>, alkyl, alkoxy; A = H, II; X = non-nucleophilic anion; m, n = 4-5) are useful as photopolymn. catalysts in compns. which contain cationically polymerizable compds. and/or radically polymerizable compds. and are curable by UV light and heating. Thus, 30.0 g p-nitrobenzyl bromide was refluxed with 12.3 g tetrahydrothiophene in MeCN to give 27.9 g tetrahydro(p-nitrobenzyl)thiophenium bromide, 15 g of which was treated with 12.9 g NaSbF<sub>6</sub> in water to give 18.6 g tetrahydro(p-nitrobenzyl)thiophenium hexafluoroantimonate (III). Mixing this salt (5%) with Epikote 828 gave a **compn.** which had a pot **life** of 6 mo at 40.degree. and gave a tackfree film when coated on glass and cured 10 s in UV light.
- IC ICM C08F002-50  
ICS C07D333-46; C07D335-02
- CC 35-3 (Chemistry of Synthetic High **Polymers**)  
Section cross-reference(s): 37
- IT Sulfonium compounds  
RL: CAT (Catalyst use); USES (Uses)  
(catalysts, for photocurable compns., for long pot **life**)
- IT Epoxy resins, uses and miscellaneous  
RL: USES (Uses)  
(photocurable compns. contg., catalysts for, for long pot **life**)
- IT Crosslinking catalysts  
(photochem., sulfonium salts, for epoxy and vinyl compds., for long pot **life**)
- IT Polymerization catalysts  
(photochem., sulfonium salts, photocurable compns. contg., with long pot **life**)
- IT 765-12-8, Triethylene glycol divinyl ether 3524-68-3, Viscoat 300  
25068-38-6, Epikote 828 25085-98-7, (3,4-Epoxy cyclohexyl)methyl  
3,4-epoxycyclohexylcarboxylate 63939-13-9, Epikote 154 74358-92-2  
77641-99-7, Kayarad DPHA  
RL: USES (Uses)  
(photocurable compns. contg., catalysts for, for long pot **life**)
- IT **60378-47-4** 88482-02-4 114166-61-9 **130693-28-6**  
130693-29-7 130758-42-8  
RL: USES (Uses)  
(photocuring of, catalysts for, sulfonium compds. as)
- IT 87301-55-1P 87301-56-2P 97744-46-2P 97744-50-8P 113203-45-5P  
**130975-50-7P** 130975-52-9P 130975-53-0P 130975-55-2P  
130975-57-4P 130993-69-0P  
RL: **PREP (Preparation)**  
(prepn. of, as photopolymn. catalyst)
- IT **60378-47-4** **130693-28-6**  
RL: USES (Uses)  
(photocuring of, catalysts for, sulfonium compds. as)
- RN 60378-47-4 HCAPLUS
- CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with (chloromethyl)oxirane and  
4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)
- CM 1
- CRN 3524-68-3  
CMF C14 H18 O7

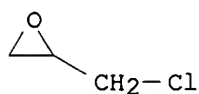




CM 2

CRN 106-89-8

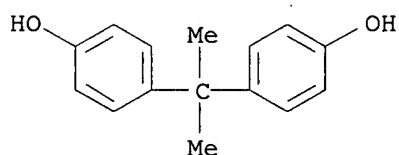
CMF C3 H5 Cl O



CM 3

CRN 80-05-7

CMF C15 H16 O2



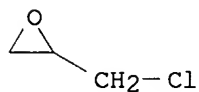
RN 130693-28-6 HCAPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane and 2-propenoic acid ester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol] (9CI) (CA INDEX NAME)

CM 1

CRN 106-89-8

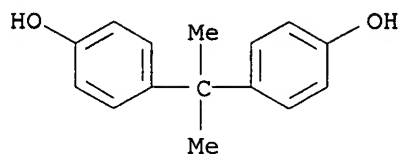
CMF C3 H5 Cl O



CM 2

CRN 80-05-7

CMF C15 H16 O2



CM 3

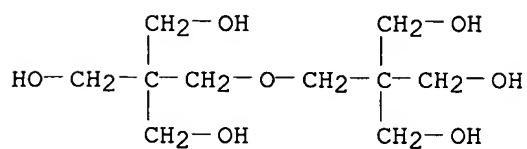
CRN 77641-99-7

CMF C10 H22 O7 . x C3 H4 O2

CM 4

CRN 126-58-9

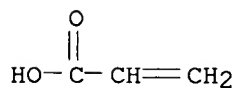
CMF C10 H22 O7



CM 5

CRN 79-10-7

CMF C3 H4 O2



IT 130975-50-7P

RL: PREP (Preparation)

(prepn. of, as photopolymn. catalyst)

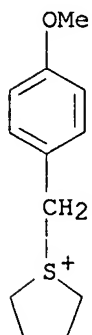
RN 130975-50-7 HCAPLUS

CN Thiophenium, tetrahydro-1-[(4-methoxyphenyl)methyl]-, tetrafluoroborate(1-)  
(9CI) (CA INDEX NAME)

CM 1

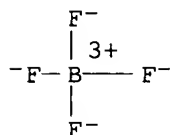
CRN 87301-51-7

CMF C12 H17 O S



CM 2

CRN 14874-70-5  
 CMF B F4  
 CCI CCS



L46 ANSWER 42 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1984:7862 HCAPLUS

DN 100:7862

TI Organoboron polymerization initiators

PA Henkel K.-G.a.A., Fed. Rep. Ger.

SO Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58128390	A2	19830730	JP 1983-6760	19830120
	JP 07023433	B4	19950315		
	DE 3201780	A1	19830825	DE 1982-3201780	19820121
	EP 85836	A2	19830817	EP 1983-100210	19830112
	EP 85836	A3	19850703		
	EP 85836	B1	19880720		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	AT 35815	E	19880815	AT 1983-100210	19830112
	US 4638092	A	19870120	US 1985-738902	19850529
PRAI	DE 1982-3201780		19820121		
	US 1982-407886		19820813		
	EP 1983-100210		19830112		

AB Organoboron compds. for aerobic room-temp. curing of acrylate adhesives are prepd. by treating unsatd. polymers (mol. wt. 300-500,000) with .ltoreq.Cl2 organoboron. Thus, a mixt. of butadiene (I) 21.6, Me acrylate

(II) 137.8, AIBN 1.6, PhSH 0.92, and THF 35 g was stirred 7 h at 60.degree. to give 38:62 I-II copolymer in 20% yield. A soln. of 40 g of the above copolymer and 1 g 9-borabicyclo[3.3.1]nonane in THF was stirred 1 h at 60.degree., stripped to remove THF, and **stored** in N. A **compn.** of poly(Me methacrylate) [9011-14-7] 40, Me methacrylate [80-62-6] 45, methacrylic acid [79-41-4] 5, and the above product 4.5 part had pot lift 5 min and formed a bonding between 2 sandblasted steel plates having tensile shear adhesive strength 24 N/mm2.

IC C07F005-02; C08F004-28; C08F008-42; C08F030-06

ICA C08J003-24; C08K005-55; C09J003-14

CC 37-6 (**Plastics** Manufacture and Processing)

IT **9011-14-7**

RL: PRP (Properties)

(adhesives, contg. Me methacrylate and methacrylic acid, catalysts for room-temp. curing of)

IT **280-64-8D**, reaction products with unsatd. polymers

**26044-99-5D**, reaction products with borabicyclononane

26297-91-6D, reaction products with borabicyclononane 26468-44-0D,

reaction products with borabicyclononane **26950-51-6D**, reaction

products with borabicyclononane 70235-09-5D, reaction products with borabicyclononane

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for room-temp. curing of methacrylate-based adhesives)

IT **9003-05-8P**

RL: **PREP (Preparation)**

(prepn. of, catalysts for, organoboron as)

IT **9011-14-7**

RL: PRP (Properties)

(adhesives, contg. Me methacrylate and methacrylic acid, catalysts for room-temp. curing of)

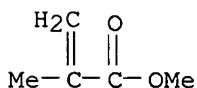
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IT **280-64-8D**, reaction products with unsatd. polymers

**26044-99-5D**, reaction products with borabicyclononane

**26950-51-6D**, reaction products with borabicyclononane

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for room-temp. curing of methacrylate-based adhesives)

RN 280-64-8 HCAPLUS

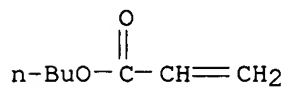
CN 9-Borabicyclo[3.3.1]nonane (8CI, 9CI) (CA INDEX NAME)



RN 26044-99-5 HCAPLUS  
 CN 2-Propenoic acid, butyl ester, polymer with 1,3-butadiene (9CI) (CA INDEX NAME)

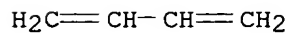
CM 1

CRN 141-32-2  
 CMF C7 H12 O2



CM 2

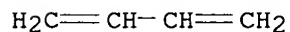
CRN 106-99-0  
 CMF C4 H6



RN 26950-51-6 HCAPLUS  
 CN 2-Propenoic acid, methyl ester, polymer with 1,3-butadiene (9CI) (CA INDEX NAME)

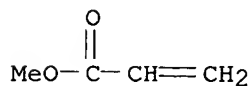
CM 1

CRN 106-99-0  
 CMF C4 H6



CM 2

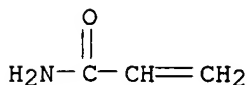
CRN 96-33-3  
 CMF C4 H6 O2



IT **9003-05-8P**  
 RL: **PREP (Preparation)**  
 (prepn. of, catalysts for, organoboron as)  
 RN 9003-05-8 HCAPLUS  
 CN 2-Propenamide, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-06-1  
 CMF C3 H5 N O



L46 ANSWER 43 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1979:55748 HCAPLUS  
 DN 90:55748  
 TI Low temperature-polymerizable two liquid-type **compositions**  
 IN Tajima, Tetsuo; Yanagihara, Eiichi; Isogai, Tokio  
 PA Hitachi, Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53102394	A2	19780906	JP 1977-16257	19770218
PRAI	JP 1977-16257		19770218		

AB A liq. **compn.** of vinyl compds. and trialkylborane and a liq. **compn.** of vinyl compds. and org. peroxides which are stable at room temp., are **stored** sep. and mixed to form a solid polymer at room temp. Thus, a mixt. of 100 parts tetraethylene glycol dimethacrylate (I) and 0.1 part Et3B [97-94-9] and a mixt. of 100 parts I and 3 parts cumene hydroperoxide [80-15-9] having good stability at room temp. were mixed and cast immediately on a Teflon sheet. The mixt. gelled in 50-60 s at 25.degree. to form a 5-mm polymer [25101-32-0] sheet having tensile strength 5.23 kg/mm2, vol. resistivity 3 .times. 1014 .OMEGA.-cm, and tan .delta. 0.019.

IC C08F004-40

CC 36-6 (**Plastics** Manufacture and Processing)

ST polyacrylate casting **compn**; polymn catalyst polyacrylate; alkylborane peroxide polymn catalyst; borane alkyl peroxide polymn catalyst

IT **97-94-9**

RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, contg. org. peroxides, for polymn. of divinyl compds. at room temp.)

IT **25101-32-0P 38719-13-0P**

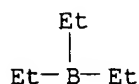
RL: PEP (Physical, engineering or chemical process); **PREP (Preparation)**; PROC (Process)

(manuf. of, catalysts for, org. peroxide and triethylborane as)

IT **68973-90-0P**

RL: PEP (Physical, engineering or chemical process); **PREP**

IT    **(Preparation);** PROC (Process)  
       (manuf. of, catalysts for, org. peroxides and triethylborane as)  
 97-94-9  
 RL: CAT (Catalyst use); USES (Uses)  
       (catalysts, contg. org. peroxides, for polymn. of divinyl compds. at  
       room temp.)  
 RN    97-94-9    HCAPLUS  
 CN    Borane, triethyl- (8CI, 9CI)    (CA INDEX NAME)



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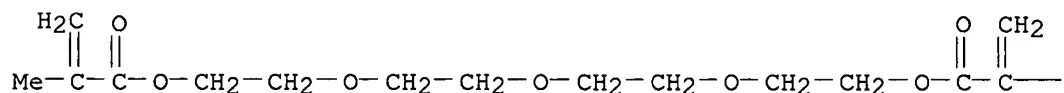
IT      25101-32-0P 38719-13-0P
        RL: PEP (Physical, engineering or chemical process); PREP
        (Preparation); PROC (Process)
        (manuf. of, catalysts for, org. peroxide and triethylborane as)
RN      25101-32-0  HCAPLUS
CN      2-Propenoic acid, 2-methyl-, oxybis(2,1-ethanedioxy-2,1-ethanediyl)
        ester, homopolymer (9CI)  (CA INDEX NAME)

CM      1

CRN     109-17-1
CMF     C16 H26 O7

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PAGE 1-A



PAGE 1-B

— Me

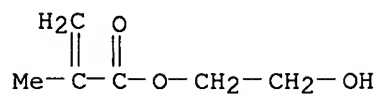
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RN      38719-13-0  HCAPLUS
CN      2-Propenoic acid, 2-methyl-, oxybis(2,1-ethanediylloxy-2,1-ethanediyl)
        ester, polymer with 2-hydroxyethyl 2-methyl-2-propenoate (9CI)  (CA INDEX
        NAME)

CM      1

CRN     868-77-9
CMF     C6 H10 O3

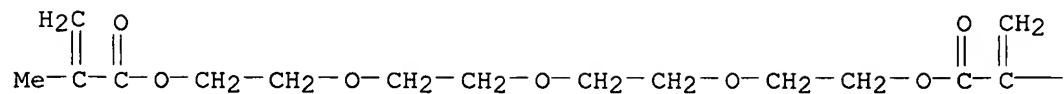
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CM 2

CRN 109-17-1  
CMF C16 H26 O7

PAGE 1-A



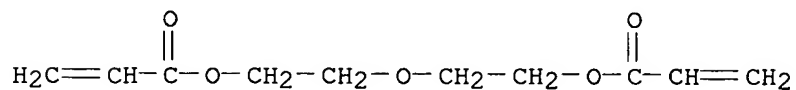
PAGE 1-B

— Me

IT **68973-90-0P**  
RL: PEP (Physical, engineering or chemical process); **PREP**  
(**Preparation**); PROC (Process)  
(manuf. of, catalysts for, org. peroxides and triethylborane as)  
RN 68973-90-0 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with  
oxydi-2,1-ethanediyl di-2-propenoate (9CI) (CA INDEX NAME)

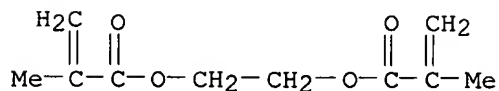
CM 1

CRN 4074-88-8  
CMF C10 H14 O5



CM 2

CRN 97-90-5  
CMF C10 H14 O4



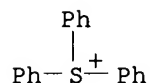


L46 ANSWER 44 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1977:602621 HCAPLUS  
 DN 87:202621  
 TI Cationic polymerization of epoxide resin  
 IN Crivello, James Vincent  
 PA General Electric Co., USA  
 SO Ger. Offen., 23 pp. Division of Ger. Offen. 2,518,652.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 FAN.CNT 20

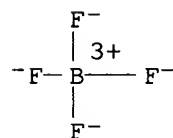
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2559718	A1	19770818	DE 1975-2559718	19750426
	DE 2559718	C2	19830804		
	GB 1516511	A	19780705	GB 1975-15701	19750416
	GB 1516512	A	19780705	GB 1978-499	19750416
	DE 2559833	C2	19831222	DE 1975-2559833	19750426
	FR 2269551	A1	19751128	FR 1975-13519	19750430
	JP 50151997	A2	19751206	JP 1975-52111	19750501
	JP 52014278	B4	19770420		
	BE 828670	A1	19750901	BE 1975-156013	19750502
	CA 1283421	A1	19910423	CA 1975-226108	19750502
	US 4216288	A	19800805	US 1978-940564	19780908
	FR 2446305	A1	19800808	FR 1978-35428	19781215
	FR 2446305	B1	19811224		
	AU 517545	B2	19810806	AU 1979-48595	19790703
	AU 7948595	A1	19810115		
	US 4245029	A	19810113	US 1979-67613	19790820
PRAI	US 1974-466374		19740502		
	US 1974-466373		19740502		
	US 1974-466375		19740502		
	US 1974-466378		19740502		
	GB 1975-15701		19750416		
	US 1975-638982		19751209		
	US 1975-638983		19751209		
	US 1975-638994		19751209		
	US 1976-689247		19760524		
	US 1977-781785		19770328		
	US 1977-822152		19770805		
	US 1977-841351		19771012		

AB Light-sensitive arom. onium salts of group VIA elements are used to initiate the cationic polymn. of epoxy resins (by in situ generation of a Lewis acid catalyst) without the adverse effects which sometimes occur when diazonium salts are used, e.g., gelation during **storage** and the formation of defects owing to N formation. Thus, a mixt. of 0.22 part triphenylsulfonium tetrafluoroborate [437-13-8] in acetonitrile and 5 parts 4-vinylcyclohexenedioxide was applied to a glass plate as a 0.05 mm thick film. When exposed to uv radiation, the **compn.** hardened within 30 s to give a hard polymer [25086-25-3] film which was insol. in polar aprotic solvents and could not be scratched with a fingernail. The curable **compn.** had an initial viscosity of 6 cP which did not change significantly after 4 mo **storage** at 25.degree. in a clear container. When the **compn.** was applied to steel and hardened, the cured film was free of bubbles and defects and was unaffected by immersion in oil for 48 h at 120.degree..

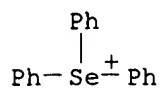
IC C08G059-40  
 CC 36-6 (**Plastics** Manufacture and Processing)  
 IT **437-13-8 437-14-9** 19158-66-8 **34887-55-3**  
 57836-00-7 57840-38-7 57900-43-3 **58109-44-7** 58109-46-9  
 58162-30-4 64760-29-8  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for polymn. and crosslinking of epoxy compns., by light)  
 IT 25086-25-3P 25639-25-2P 29616-43-1P 53895-44-6P **64716-84-3P**  
 RL: **PREP (Preparation)**  
 (manuf. of, photosensitive catalysts for)  
 IT **313-39-3**  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with thioxanthene)  
 IT **437-13-8 437-14-9 34887-55-3**  
**58109-44-7**  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for polymn. and crosslinking of epoxy compns., by light)  
 RN 437-13-8 HCAPLUS  
 CN Sulfonium, triphenyl-, tetrafluoroborate(1-) (8CI, 9CI) (CA INDEX NAME)  
 CM 1  
 CRN 18393-55-0  
 CMF C18 H15 S



CM 2  
 CRN 14874-70-5  
 CMF B F4  
 CCI CCS



RN 437-14-9 HCAPLUS  
 CN Selenonium, triphenyl-, tetrafluoroborate(1-) (8CI, 9CI) (CA INDEX NAME)  
 CM 1  
 CRN 25929-33-3  
 CMF C18 H15 Se

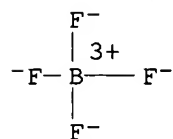


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



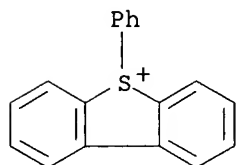
RN 34887-55-3 HCAPLUS

CN Dibenzothiophenium, 5-phenyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 38347-29-4

CMF C18 H13 S

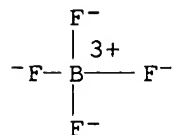


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS

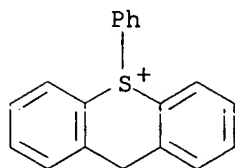


RN 58109-44-7 HCAPLUS

CN 9H-Thioxanthenium, 10-phenyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

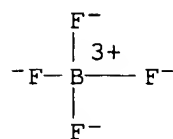
CM 1

CRN 53512-22-4  
CMF C19 H15 S



CM 2

CRN 14874-70-5  
CMF B F4  
CCI CCS



IT 64716-84-3P

RL: PREP (Preparation)

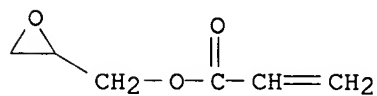
(manuf. of, photosensitive catalysts for)

RN 64716-84-3 HCAPLUS

CN 2-Propenoic acid, oxiranylmethyl ester, polymer with octahydro-2,4-methano-2H-indeno[1,2-b:5,6-b']bisoxirene (9CI) (CA INDEX NAME)

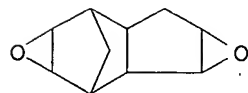
CM 1

CRN 106-90-1  
CMF C6 H8 O3



CM 2

CRN 81-21-0  
CMF C10 H12 O2



IT 313-39-3

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with thioxanthene)

RN 313-39-3 HCAPLUS

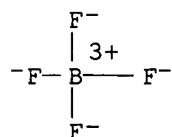
CN Iodonium, diphenyl-, tetrafluoroborate(1-) (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 14874-70-5

CMF B F4

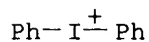
CCI CCS



CM 2

CRN 10182-84-0

CMF C12 H10 I



L46 ANSWER 45 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1975:498480 HCAPLUS

DN 83:98480

TI Anaerobically hardening **composition**

IN Skoultchi, Martin M.

PA National Starch and Chemical Corp., USA

SO Ger. Offen., 37 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

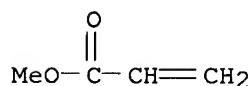
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PI	DE 2451350	A1	19750430	DE 1974-2451350	19741029
	DE 2451350	C3	19790201		
	US 3880956	A	19750429	US 1973-410912	19731029
	CA 1023492	A1	19771227	CA 1974-211186	19741010
	NL 7413913	A	19750502	NL 1974-13913	19741024
	NL 158814	B	19781215		
	FR 2249119	A1	19750523	FR 1974-36029	19741028
	GB 1482459	A	19770810	GB 1974-46440	19741028
	BE 821628	A1	19750217	BE 1974-150009	19741029
	JP 50074690	A2	19750619	JP 1974-123983	19741029
	JP 54001597	B4	19790126		
PRAI	US 1973-410912		19731029		

- AB Mixts. of bis[4-(diethylamino)benzenediazonium] tetrachlorozincate (I) [5149-85-9] or one of 10 similar diazonium compds. with ethylene dimethacrylate (II), hydroxyethyl methacrylate, and/or similar monomers hardened anaerobically and were useful as adhesives and sealants, e.g., for bonding metal nuts and bolts. Thus, II contg. 0.5% I hardened (polymd.) during 8 min between the threads of iron [7439-89-6] nuts and bolts. The shelf life of the monomer-catalyst mixts. was extended by stabilizers such as p-toluenesulfonic acid [104-15-4].
- IC C08L; C09K; C09J
- CC 36-6 (Plastics Manufacture and Processing)
- IT Sealing compositions  
(acrylates, anaerobically polymerizable, for metals)
- IT 9003-21-8 9003-42-3 9003-49-0  
9086-85-5 25053-81-0 25101-30-8  
25101-31-9 25249-16-5 25266-13-1  
25721-76-0 25852-49-7 26022-14-0 26355-01-1  
27775-58-2 28158-16-9 28518-77-6  
28628-65-1 30600-43-2 36446-02-3 51365-46-9  
56315-94-7 56315-95-8 56315-96-9 56590-30-8  
56619-74-0 56641-04-4  
RL: USES (Uses)  
(adhesives, anaerobically polymd.)
- IT 5149-85-9 6023-44-5 14239-23-7 14263-92-4 14263-94-6 14751-97-4  
56307-70-1 56307-71-2 56315-29-8 56315-30-1 56315-32-3  
RL: CAT (Catalyst use); USES (Uses)  
(catalysts, for anaerobic polymn. of acrylates)
- IT 56641-07-7P  
RL: PREP (Preparation)  
(prepn. of)
- IT 104-15-4, uses and miscellaneous 109-63-7 657-84-1  
7646-85-7, uses and miscellaneous 7664-93-9, uses and miscellaneous  
RL: USES (Uses)  
(stabilizers, for anaerobically polymerizable acrylate monomers)
- IT 9003-21-8 9003-42-3 9003-49-0  
9086-85-5 25053-81-0 25101-30-8  
25101-31-9 25249-16-5 25266-13-1  
25721-76-0 26022-14-0 26355-01-1  
27775-58-2 28158-16-9 28518-77-6  
28628-65-1 30600-43-2 36446-02-3  
56315-94-7 56315-95-8 56315-96-9  
56619-74-0  
RL: USES (Uses)  
(adhesives, anaerobically polymd.)
- RN 9003-21-8 HCAPLUS
- CN 2-Propenoic acid, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 96-33-3

CMF C4 H6 O2



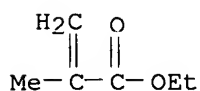
RN 9003-42-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 97-63-2

CMF C6 H10 O2



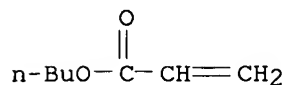
RN 9003-49-0 HCAPLUS

CN 2-Propenoic acid, butyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2

CMF C7 H12 O2



RN 9086-85-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 27813-02-1

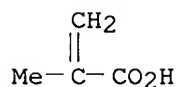
CMF C7 H12 O3

CCI IDS

CM 2

CRN 79-41-4

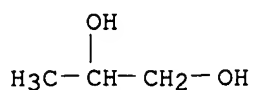
CMF C4 H6 O2



CM 3

CRN 57-55-6

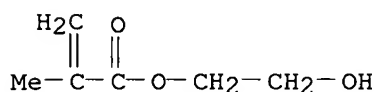
CMF C3 H8 O2



RN 25053-81-0 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with  
 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

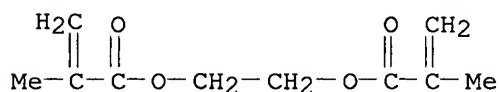
CM 1

CRN 868-77-9  
 CMF C6 H10 O3



CM 2

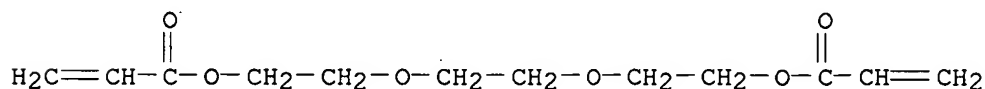
CRN 97-90-5  
 CMF C10 H14 O4



RN 25101-30-8 HCAPLUS  
 CN 2-Propenoic acid, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester, homopolymer  
 (9CI) (CA INDEX NAME)

CM 1

CRN 1680-21-3  
 CMF C12 H18 O6

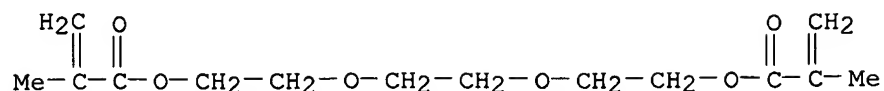


RN 25101-31-9 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester,  
 homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 109-16-0  
 CMF C14 H22 O6

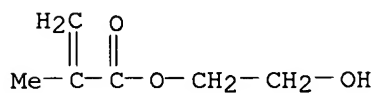




RN 25249-16-5 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

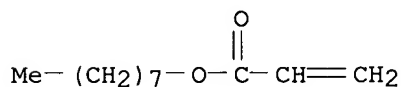
CRN 868-77-9  
 CMF C6 H10 O3



RN 25266-13-1 HCAPLUS  
 CN 2-Propenoic acid, octyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

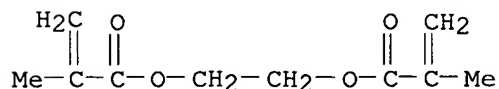
CRN 2499-59-4  
 CMF C11 H20 O2



RN 25721-76-0 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

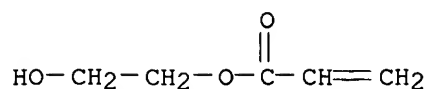
CRN 97-90-5  
 CMF C10 H14 O4



RN 26022-14-0 HCAPLUS  
 CN 2-Propenoic acid, 2-hydroxyethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 818-61-1  
 CMF C5 H8 O3



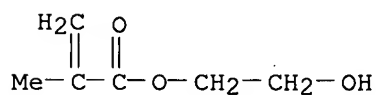
RN 26355-01-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl  
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9

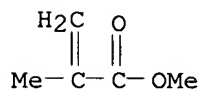
CMF C6 H10 O3



CM 2

CRN 80-62-6

CMF C5 H8 O2



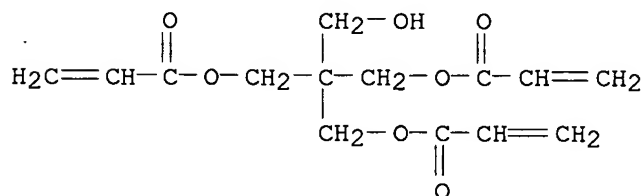
RN 27775-58-2 HCAPLUS

CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[ (1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3524-68-3

CMF C14 H18 O7



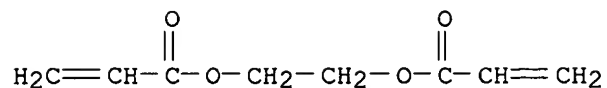
RN 28158-16-9 HCAPLUS

CN 2-Propenoic acid, 1,2-ethanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2274-11-5

CMF C8 H10 O4



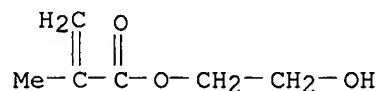
RN 28518-77-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9

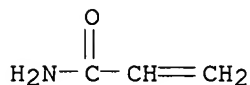
CMF C6 H10 O3



CM 2

CRN 79-06-1

CMF C3 H5 N O



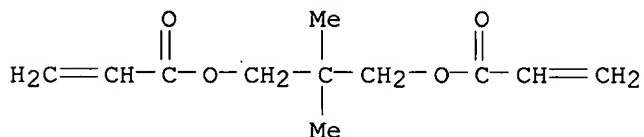
RN 28628-65-1 HCAPLUS

CN 2-Propenoic acid, 2,2-dimethyl-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2223-82-7

CMF C11 H16 O4



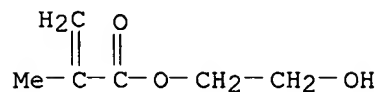
RN 30600-43-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9

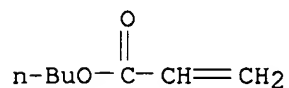
CMF C6 H10 O3



CM 2

CRN 141-32-2

CMF C7 H12 O2



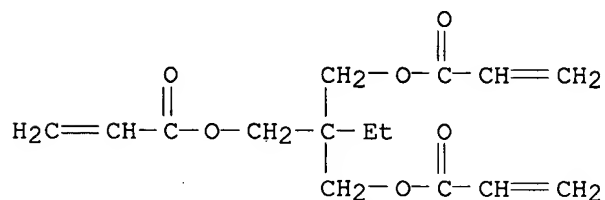
RN 36446-02-3 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-[[ (1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 15625-89-5

CMF C15 H20 O6



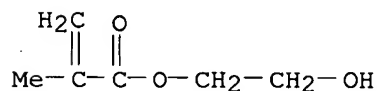
RN 56315-94-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 2-methylpropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9

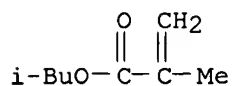
CMF C6 H10 O3



CM 2

CRN 97-86-9

CMF C8 H14 O2



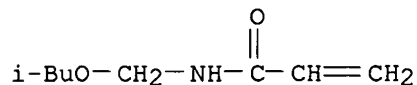
RN 56315-95-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with  
N-[(2-methylpropoxy)methyl]-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 16669-59-3

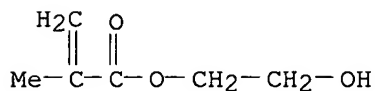
CMF C8 H15 N O2



CM 2

CRN 868-77-9

CMF C6 H10 O3



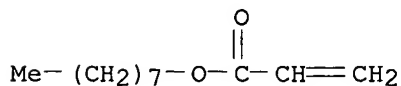
RN 56315-96-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with octyl  
2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2499-59-4

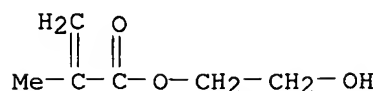
CMF C11 H20 O2



CM 2

CRN 868-77-9

CMF C6 H10 O3



RN 56619-74-0 HCAPLUS

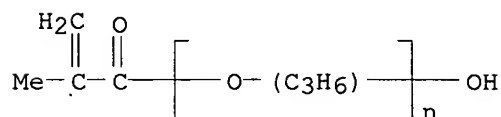
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with  
.alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 39420-45-6

CMF (C3 H6 O)n C4 H6 O2

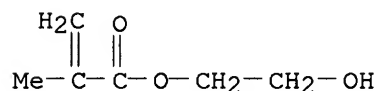
CCI IDS, PMS



CM 2

CRN 868-77-9

CMF C6 H10 O3



IT 56315-32-3

RL: CAT (Catalyst use); USES (Uses)  
(catalysts, for anaerobic polymn. of acrylates)

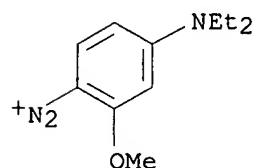
RN 56315-32-3 HCAPLUS

CN Benzenediazonium, 4-(diethylamino)-2-methoxy-, tetrafluoroborate(1-) (9CI)  
(CA INDEX NAME)

CM 1

CRN 56315-31-2

CMF C11 H16 N3 O

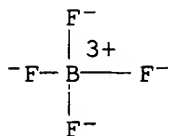


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IT 56641-07-7P

RL: PREP (Preparation)  
(prepn. of)

RN 56641-07-7 HCAPLUS

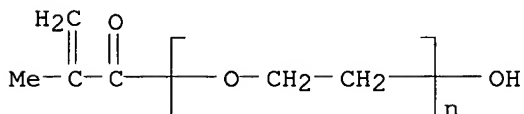
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with  
.alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 25736-86-1

CMF (C2 H4 O)<sub>n</sub> C4 H6 O2

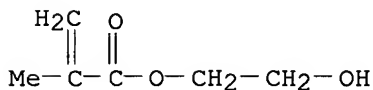
CCI PMS



CM 2

CRN 868-77-9

CMF C6 H10 O3

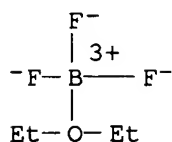


IT 109-63-7

RL: USES (Uses)  
(stabilizers, for anaerobically polymerizable acrylate monomers)

RN 109-63-7 HCAPLUS

CN Boron, trifluoro[1,1'-oxybis[ethane]]-, (T-4)- (9CI) (CA INDEX NAME)



L46 ANSWER 46 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1972:141773 HCAPLUS

DN 76:141773

TI Unsaturated ester resins

IN Takiyama, Eiichiro; Hokamura, Sadakazu

PA Showa Highpolymer Co., Ltd.

SO Ger. Offen., 19 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2037654	A	19720203	DE 1970-2037654	19700729
	DE 2037654	B2	19770217		
	DE 2037654	C3	19810910		
PRAI	DE 1970-2037654		19700729		

AB Unsatd. ester resins with improved pot **life** were prepd. from epoxides and unsatd. monobasic acids in the presence of acid salts of secondary amines. Thus, methacrylic acid [79-41-4] 860, Epikote 828 2000, and diethylamine-HCl [660-68-4] 14.3 parts were heated 150 min at 120.deg. and dild. with 1040 g styrene, giving a resin which had gel time 9 min 20 sec and min. hardening time 13 min 25 sec after the addn. of 1 part Bz2O2 and 0.1 part PhNMe2 to 100 parts resin, and pot **life** 28 hr at 20.deg. after the addn. of 2 parts Bz2O2 paste to 100 parts resin. A comparison **compn.** prepd. with triethylamine-HCl catalyst gave times of 3 min, 5 min 15 sec, and 50 min, resp.

IC C08G

CC 36 (Plastics Manufacture and Processing)

IT Epoxy resins

RL: USES (Uses)

(polymers with acrylic acids, with improved pot **life**)

IT 36425-15-7P 36425-16-8P 36425-17-9P

36425-18-0P

RL: PREP (Preparation)

(catalysts for manuf. of, with improved pot **life**)

IT 372-56-5 506-59-2 660-68-4 20726-63-0 29688-77-5

29688-78-6

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for polymn. of epoxy resins and acrylic acids)

IT 36425-15-7P 36425-16-8P 36425-17-9P

36425-18-0P

RL: PREP (Preparation)

(catalysts for manuf. of, with improved pot **life**)

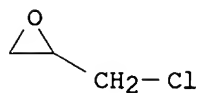
RN 36425-15-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

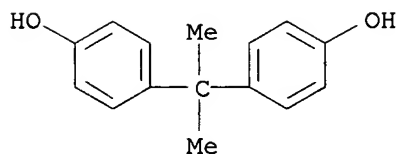


CRN 106-89-8  
CMF C3 H5 Cl O



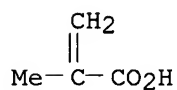
CM 2

CRN 80-05-7  
CMF C15 H16 O2



CM 3

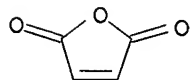
CRN 79-41-4  
CMF C4 H6 O2



RN 36425-16-8 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, polymer with (chloromethyl)oxirane,  
2,5-furandione and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX  
NAME)

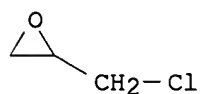
CM 1

CRN 108-31-6  
CMF C4 H2 O3



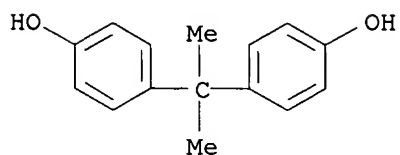
CM 2

CRN 106-89-8  
CMF C3 H5 Cl O



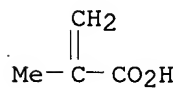
CM 3

CRN 80-05-7  
CMF C15 H16 O2



CM 4

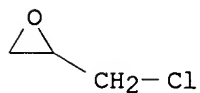
CRN 79-41-4  
CMF C4 H6 O2



RN 36425-17-9 HCAPLUS  
CN 2-Propenoic acid, polymer with (chloromethyl)oxirane, 1,3-isobenzofurandione and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

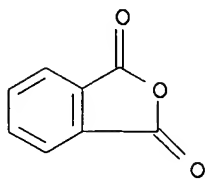
CM 1

CRN 106-89-8  
CMF C3 H5 Cl O



CM 2

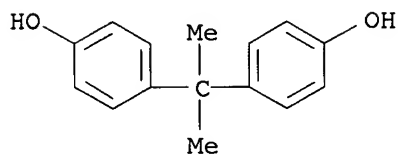
CRN 85-44-9  
CMF C8 H4 O3



CM 3

CRN 80-05-7

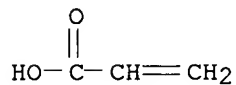
CMF C15 H16 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



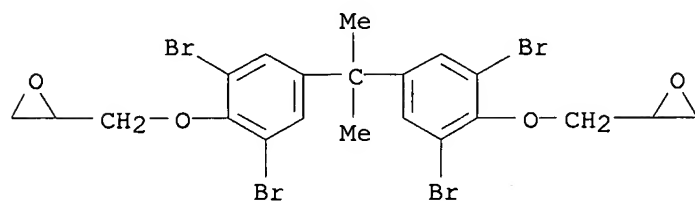
RN 36425-18-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2,2'-[(1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxymethylene]]bis[oxirane (9CI) (CA INDEX NAME)

CM 1

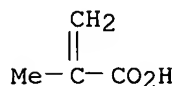
CRN 3072-84-2

CMF C21 H20 Br4 O4

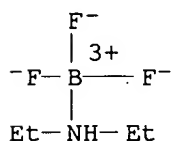


CM 2

CRN 79-41-4  
CMF C4 H6 O2



IT 372-56-5  
RI: CAT (Catalyst use); USES (Uses)  
(catalysts, for polymn. of epoxy resins and acrylic acids)  
RN 372-56-5 HCAPLUS  
CN Boron, (N-ethylethanamine)trifluoro-, (T-4)- (9CI) (CA INDEX NAME)



L46 ANSWER 47 OF 47 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1971:32321 HCAPLUS  
DN 74:32321  
TI Alternating copolymers  
IN Takeya, Kenji; Uno, Yoshihiro; Yamane, Akira  
PA Sumitomo Chemical Co., Ltd.; Japan Exlan Co., Ltd.  
SO Ger. Offen., 50 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2014802		19701008		
	FR 2035909			FR	
	GB 1285483			GB	
	JP 47042953		19720000	JP	
	US 3637611		19720000	US	
PRAI	JP		19690326		

AB Predominantly alternating copolymers are prepd. by copolymg. substituted glutaronitriles, dialkyl itaconates, or substituted acrylates with various vinyl or diene monomers in the presence of transition metal catalysts and possibly promoters. Thus, .alpha.-methyleneglutaronitrile (I) is copolymd. with styrene (II) in a PhMe-o-Cl<sub>2</sub>C<sub>6</sub>H<sub>4</sub> soln. in the presence of EtAlCl<sub>2</sub> at 20.degree. to yield a copolymer contg. 50.8% I. Other copolymers prepd. are di-Me itaconate-II copolymer, I-vinyl acetate copolymer, Me .alpha.-cyanoethylacrylate-vinylidene chloride copolymer, and di-Bu itaconate-butadiene copolymer.

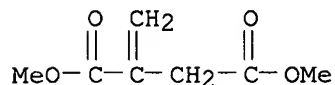
IC C08F

CC 36 (Plastics Manufacture and Processing)

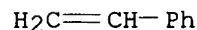
IT 25587-84-2P, preparation 30624-27-2P, preparation 30624-29-4P, preparation 30624-30-7P, preparation 30624-31-8P, preparation

RL: PREP (Preparation)  
(catalysts for)

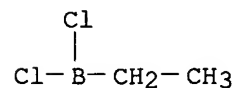
IT 563-43-9, uses and miscellaneous 1739-53-3 7646-78-8  
 12075-68-2  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for polymn. of cyanomethylenebutyric acid with vinyl  
 compds.)  
 IT 25587-84-2P, preparation  
 RL: PREP (Preparation)  
 (catalysts for)  
 RN 25587-84-2 HCAPLUS  
 CN Butanedioic acid, methylene-, dimethyl ester, polymer with ethenylbenzene  
 (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 617-52-7  
 CMF C7 H10 O4



CM 2  
 CRN 100-42-5  
 CMF C8 H8



IT 1739-53-3  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for polymn. of cyanomethylenebutyric acid with vinyl  
 compds.)  
 RN 1739-53-3 HCAPLUS  
 CN Borane, dichloroethyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



=> d que

L9 16 SEA FILE=REGISTRY ABB=ON (108-30-5/BI OR 20882-04-6/BI OR  
 2155-60-4/BI OR 223674-50-8/BI OR 2455-24-5/BI OR 454692-84-3/B  
 I OR 454692-85-4/BI OR 454692-86-5/BI OR 454692-87-6/BI OR  
 454692-88-7/BI OR 454692-89-8/BI OR 454692-90-1/BI OR 454692-91  
 -2/BI OR 454692-92-3/BI OR 9002-88-4/BI OR 98-83-9/BI)  
 L10 3 SEA FILE=REGISTRY ABB=ON L9 AND ITACONIC  
 L11 1 SEA FILE=REGISTRY ABB=ON L10 NOT PMS/CI  
 L12 281668 SEA FILE=REGISTRY ABB=ON PACR/PCT  
 L13 227286 SEA FILE=REGISTRY ABB=ON (B(L)C(L)H)/ELS

L14 3 SEA FILE=REGISTRY ABB=ON ("ITACONIC ACID"/CN OR "ITACONIC ACID .BETA.-BUTYL ESTER"/CN OR "ITACONIC ACID .BETA.-METHYL ESTER"/CN)  
 L15 64 SEA FILE=REGISTRY ABB=ON ITACONIC(L)ESTER  
 L16 35 SEA FILE=REGISTRY ABB=ON L15 NOT PMS/CI  
 L17 4 SEA FILE=REGISTRY ABB=ON L11 OR L14  
 L18 36 SEA FILE=REGISTRY ABB=ON L16 OR L17  
 L19 369998 SEA FILE=HCAPLUS ABB=ON L12  
 L20 107088 SEA FILE=HCAPLUS ABB=ON L13  
 L21 3493 SEA FILE=HCAPLUS ABB=ON L18  
 L22 15 SEA FILE=HCAPLUS ABB=ON L19 AND L20 AND L21  
 L23 37 SEA FILE=HCAPLUS ABB=ON L19 AND L20 AND ?ITACON?  
 L24 2 SEA FILE=HCAPLUS ABB=ON L23 AND ?LIFE?  
 L26 3 SEA FILE=HCAPLUS ABB=ON L19 AND L20 AND ?ITACON?(L)MOA/RL  
 L27 94 SEA FILE=HCAPLUS ABB=ON L19 AND L20 AND ?LIFE?  
 L28 30 SEA FILE=HCAPLUS ABB=ON L27 AND (POLYMER? OR PLASTIC?)/SC  
 L29 18 SEA FILE=HCAPLUS ABB=ON L28 AND (PREP OR IMF OR SPN)/RL  
 L30 9 SEA FILE=HCAPLUS ABB=ON L29 AND (SYSTEM# OR COMPOSITION?)  
 L31 191 SEA FILE=HCAPLUS ABB=ON L19 AND L20 AND (STORE OR STORAGE OR STORING OR STORED)  
 L32 115 SEA FILE=HCAPLUS ABB=ON L31 AND (SYSTEM# OR COMPOSITION?)  
 L33 35 SEA FILE=HCAPLUS ABB=ON L32 AND (POLYMER? OR PLASTIC?)/SC  
 L34 21 SEA FILE=HCAPLUS ABB=ON L33 AND (PREP OR IMF OR SPN)/RL  
 L35 44 SEA FILE=HCAPLUS ABB=ON L22 OR L24 OR L26 OR L30 OR L34  
 L36 1 SEA FILE=HCAPLUS ABB=ON L23 AND DECOMPLEX?  
 L37 8 SEA FILE=HCAPLUS ABB=ON L19 AND L20 AND DECOMPLEX?  
 L38 51 SEA FILE=HCAPLUS ABB=ON (L35 OR L36 OR L37)  
 L39 1838 SEA FILE=REGISTRY ABB=ON L12 AND ITACON?  
 L40 4456 SEA FILE=HCAPLUS ABB=ON L39  
 L41 32 SEA FILE=HCAPLUS ABB=ON L20 AND L40  
 L42 22 SEA FILE=HCAPLUS ABB=ON L41 AND (PREP OR IMF OR SPN)/RL  
 L43 10 SEA FILE=HCAPLUS ABB=ON L42 AND (POLYMER? OR PLASTIC?)/SC  
 L44 57 SEA FILE=HCAPLUS ABB=ON L38 OR L43  
 L45 49 SEA FILE=HCAPLUS ABB=ON L44 AND (POLYMER? OR PLASTIC?)/SC  
 L46 47 SEA FILE=HCAPLUS ABB=ON L45 AND (PREP OR IMF OR SPN)/RL  
 L49 42 SEA FILE=HCAPLUS ABB=ON (L42 OR L32 OR L27 OR L23) AND ADHESIV?  
 L50 11 SEA FILE=HCAPLUS ABB=ON L49 AND (L42 OR ?ITACON? OR L21)  
 L51 8 SEA FILE=HCAPLUS ABB=ON (L50 OR L46) NOT L46  
 L53 13 SEA FILE=HCAPLUS ABB=ON (L42 OR L32 OR L27 OR L23) AND (RUBBER? OR ELASTOMER?)  
 L54 4 SEA FILE=HCAPLUS ABB=ON L53 AND (L42 OR ?ITACON? OR L21)  
 L55 2 SEA FILE=HCAPLUS ABB=ON (L54 OR L46) NOT L46  
 L56 10 SEA FILE=HCAPLUS ABB=ON L51 OR L55  
 L57 9 SEA FILE=HCAPLUS ABB=ON L56 AND (POLYMER? OR PLASTIC? OR ELASTOMER?)/SC, SX

=> d 157 bib abs hitind hitstr 1-9

L57 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1999:636105 HCAPLUS  
 DN 131:244520  
 TI Acrylic **elastomer**-mercaptobenzimidazole composition and sealing materials therefrom  
 IN Moriyama, Iwao; Kuzumaki, Yoshihiro; Sato, Takeshi  
 PA Nippon Mektron, Ltd., Japan  
 SO Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 943657	A2	19990922	EP 1999-101773	19990212
	EP 943657	A3	20000809		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 11269336	A2	19991005	JP 1998-90858	19980319
	US 2002037970	A1	20020328	US 2001-960815	20010921
PRAI	JP 1998-90858	A	19980319		
	US 1999-246772	A3	19990208		
AB	An acrylic <b>elastomer</b> compn. comprising a carboxyl group-contg. acrylic <b>elastomer</b> and a mercaptobenzimidazole gives sealing materials, etc., having improved compression set characteristics, when a vulcanizing agent-vulcanization accelerator combination such as (1) polyfunctional isocyanate compd. and at least one of a guanidine, a quaternary onium salt, a tertiary amine and a tertiary phosphine, and (2) a diamine compd. and at least one of a guanidine, 1,8-diazabicyclo[5,4,0]-undecene-7, 1,5-diazabicyclo[4,3,0]nonene-5 and their salts is used. Thus, a compn. comprising Bu acrylate-Et acrylate-2-methoxyethyl acrylate-monoethyl maleate <b>rubber</b> (prepn. given) 100, stearic acid 1, 4,4'-bis(.alpha.,.alpha.-dimethylbenzyl)diphenylamine 3, FEF carbon black 65, hexamethylene diisocyanate 0.6, dimethylbenzylamine 1, and 2-mercaptomethylbenzimidazole (I) 1 part was kneaded, then vulcanized 8 min at 180.degree. and 4 h at 175.degree., giving compression set 19%, compared with 23 without I.				
IC	ICM C08L033-06 ICS C08K005-37				
CC	39-15 (Synthetic <b>Elastomers</b> and Natural Rubber) Section cross-reference(s): 42				
ST	acrylic <b>rubber</b> mercaptobenzimidazole sealing material; benzimidazole mercapto acrylic <b>rubber</b> compression set; isocyanate vulcanizing agent acrylic <b>rubber</b> mercaptobenzimidazole; HMDI vulcanizing agent acrylic <b>rubber</b> mercaptobenzimidazole; amine vulcanizing agent acrylic <b>rubber</b> mercaptobenzimidazole; guanidine vulcanization accelerator acrylic <b>rubber</b> mercaptobenzimidazole; quaternary ammonium compd vulcanization accelerator				
IT	Seals (parts) (O-rings; acrylic <b>elastomer</b> -benzimidazole compn. for sealing materials with improved compression set)				
IT	Gaskets Sealing compositions Vulcanization accelerators and agents (acrylic <b>elastomer</b> -benzimidazole compn. for sealing materials with improved compression set)				
IT	Acrylic <b>rubber</b> RL: DEV (Device component use); POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (carboxy-contg.; acrylic <b>elastomer</b> -benzimidazole compn. for sealing materials with improved compression set)				
IT	Synthetic <b>rubber</b> , uses RL: DEV (Device component use); POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (ethylene-Me acrylate-mono-Me maleate, Vamac HG; acrylic				

- elastomer**-benzimidazole compn. for sealing materials with improved compression set)
- IT Amines, uses  
 RL: CAT (Catalyst use); USES (Uses)  
 (tertiary, vulcanization accelerator; acrylic **elastomer**-benzimidazole compn. for sealing materials with improved compression set)
- IT Quaternary ammonium compounds, uses  
 RL: CAT (Catalyst use); USES (Uses)  
 (vulcanization accelerator; acrylic **elastomer**-benzimidazole compn. for sealing materials with improved compression set)
- IT 53988-10-6, Nocrac MMB  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (Nocrac MMB; acrylic **elastomer**-benzimidazole compn. for sealing materials with improved compression set)
- IT 583-39-1, Nocrac MB  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (acrylic **elastomer**-benzimidazole compn. for sealing materials with improved compression set)
- IT 76523-00-7, Ethylene-methyl acrylate-monomethyl maleate copolymer 136200-90-3, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl maleate copolymer 222184-87-4, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl maleate copolymer 222409-93-0, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-mono-n-butyl fumarate copolymer 222409-97-4, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl fumarate copolymer 222410-07-3, Butyl acrylate-2-methoxyethyl acrylate-mono-n-butyl fumarate copolymer 222410-11-9, Butyl acrylate-ethyl acrylate-mono-n-butyl fumarate copolymer 222410-16-4, Ethyl acrylate-2-methoxyethyl acrylate-mono-n-butyl fumarate copolymer 225938-89-6, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monomethyl **itaconate** copolymer  
 RL: DEV (Device component use); POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (**rubber**; acrylic **elastomer**-benzimidazole compn. for sealing materials with improved compression set)
- IT 95-33-0, Nocceler CZ 97-39-2, Nocceler DT 101-80-4 102-77-2, Nocceler MSA 103-83-3 122-18-9, Cetyldimethylbenzylammonium chloride 3001-72-7, 1,5-Diazabicyclo[4.3.0]non-5-ene 6674-22-2 10081-67-1, 4,4'-Bis(.alpha.,.alpha.-dimethylbenzyl)diphenylamine 16971-82-7, Nocceler PR  
 RL: CAT (Catalyst use); USES (Uses)  
 (vulcanization accelerator; acrylic **elastomer**-benzimidazole compn. for sealing materials with improved compression set)
- IT 140-73-8, Diak 3 143-06-6 822-06-0, Hexamethylene diisocyanate 2716-10-1, Bisaniline P 27138-32-5 69563-88-8, 2,2-Bis[4-(4-aminophenoxy)phenyl]hexafluoropropane  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (vulcanizing agent; acrylic **elastomer**-benzimidazole compn. for sealing materials with improved compression set)
- IT 76523-00-7, Ethylene-methyl acrylate-monomethyl maleate copolymer 136200-90-3, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl maleate copolymer 222184-87-4, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl maleate copolymer 222409-93-0, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-mono-n-butyl fumarate copolymer 222409-97-4, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl fumarate copolymer 222410-07-3, Butyl acrylate-2-methoxyethyl



acrylate-mono-n-butyl fumarate copolymer **222410-11-9**, Butyl  
 acrylate-ethyl acrylate-mono-n-butyl fumarate copolymer  
**222410-16-4**, Ethyl acrylate-2-methoxyethyl acrylate-mono-n-butyl  
 fumarate copolymer **225938-89-6**, Butyl acrylate-ethyl  
 acrylate-2-methoxyethyl acrylate-monomethyl **itaconate** copolymer  
 RL: DEV (Device component use); POF (Polymer in formulation); TEM  
 (Technical or engineered material use); USES (Uses)  
 (**rubber**; acrylic **elastomer**-benzimidazole compn. for  
 sealing materials with improved compression set)

RN 76523-00-7 HCAPLUS

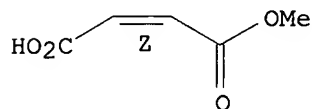
CN 2-Butenedioic acid (2Z)-, monomethyl ester, polymer with ethene and methyl  
 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 3052-50-4

CMF C5 H6 O4

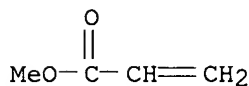
Double bond geometry as shown.



CM 2

CRN 96-33-3

CMF C4 H6 O2



CM 3

CRN 74-85-1

CMF C2 H4



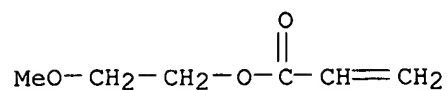
RN 136200-90-3 HCAPLUS

CN 2-Butenedioic acid (2Z)-, monobutyl ester, polymer with butyl  
 2-propenoate, ethyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI)  
 (CA INDEX NAME)

CM 1

CRN 3121-61-7

CMF C6 H10 O3

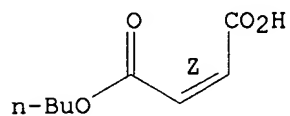


CM 2

CRN 925-21-3

CMF C8 H12 O4

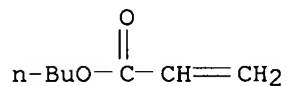
Double bond geometry as shown.



CM 3

CRN 141-32-2

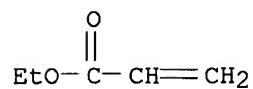
CMF C7 H12 O2



CM 4

CRN 140-88-5

CMF C5 H8 O2



RN 222184-87-4 HCAPLUS

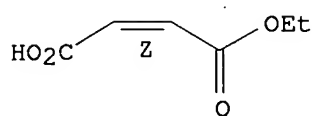
CN 2-Butenedioic acid (2Z)-, monoethyl ester, polymer with butyl 2-propenoate, ethyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI)  
(CA INDEX NAME)

CM 1

CRN 3990-03-2

CMF C6 H8 O4

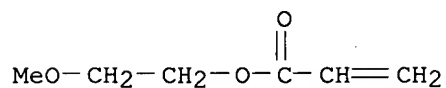
Double bond geometry as shown.



CM 2

CRN 3121-61-7

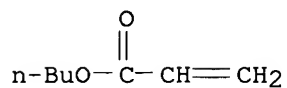
CMF C6 H10 O3



CM 3

CRN 141-32-2

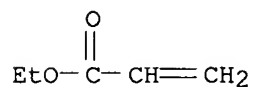
CMF C7 H12 O2



CM 4

CRN 140-88-5

CMF C5 H8 O2



RN 222409-93-0 HCAPLUS

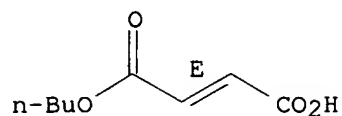
CN 2-Butenedioic acid (2E)-, monobutyl ester, polymer with butyl 2-propenoate, ethyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI)  
(CA INDEX NAME)

CM 1

CRN 16062-88-7

CMF C8 H12 O4

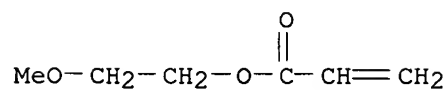
Double bond geometry as shown.



CM 2

CRN 3121-61-7

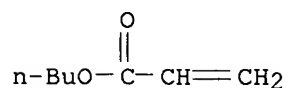
CMF C6 H10 O3



CM 3

CRN 141-32-2

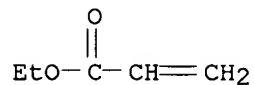
CMF C7 H12 O2



CM 4

CRN 140-88-5

CMF C5 H8 O2



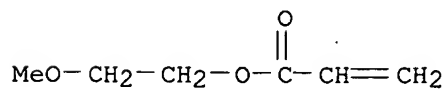
RN 222409-97-4 HCAPLUS

CN 2-Butenedioic acid (2E)-, monoethyl ester, polymer with butyl 2-propenoate, ethyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI)  
(CA INDEX NAME)

CM 1

CRN 3121-61-7

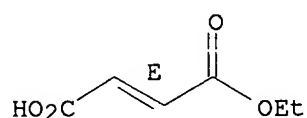
CMF C6 H10 O3



CM 2

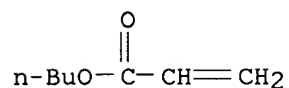
CRN 2459-05-4  
CMF C6 H8 O4

Double bond geometry as shown.



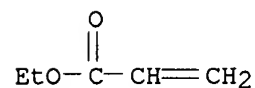
CM 3

CRN 141-32-2  
CMF C7 H12 O2



CM 4

CRN 140-88-5  
CMF C5 H8 O2



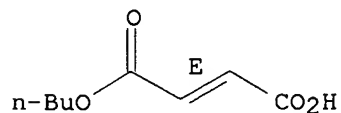
RN 222410-07-3 HCAPLUS

CN 2-Butenedioic acid (2E)-, monobutyl ester, polymer with butyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

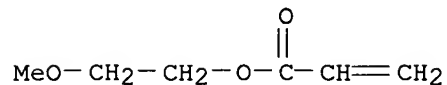
CRN 16062-88-7  
CMF C8 H12 O4

Double bond geometry as shown.



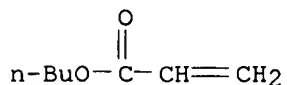
CM 2

CRN 3121-61-7  
CMF C6 H10 O3



CM 3

CRN 141-32-2  
CMF C7 H12 O2

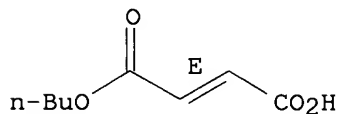


RN 222410-11-9 HCAPLUS  
CN 2-Butenedioic acid (2E)-, monobutyl ester, polymer with butyl 2-propenoate and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

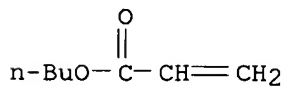
CRN 16062-88-7  
CMF C8 H12 O4

Double bond geometry as shown.



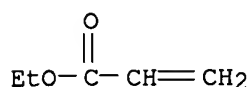
CM 2

CRN 141-32-2  
CMF C7 H12 O2



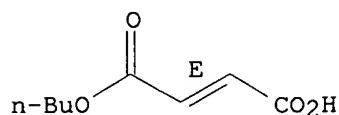
CM 3

CRN 140-88-5  
CMF C5 H8 O2

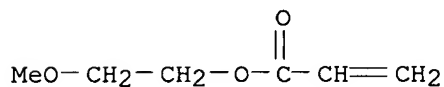


RN 222410-16-4 HCAPLUS  
 CN 2-Butenedioic acid (2E)-, monobutyl ester, polymer with ethyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 16062-88-7  
 CMF C8 H12 O4

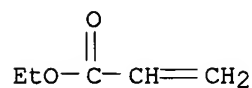
Double bond geometry as shown.



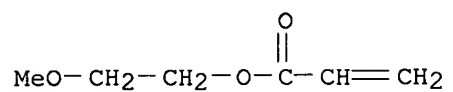
CM 2  
 CRN 3121-61-7  
 CMF C6 H10 O3



CM 3  
 CRN 140-88-5  
 CMF C5 H8 O2

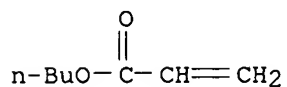


RN 225938-89-6 HCAPLUS  
 CN Butanedioic acid, methylene-, monomethyl ester, polymer with butyl 2-propenoate, ethyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 3121-61-7  
 CMF C6 H10 O3



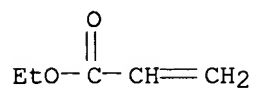
CM 2

CRN 141-32-2  
CMF C/ H12 O2



CM 3

CRN 140-88-5  
CMF C5 H8 O2

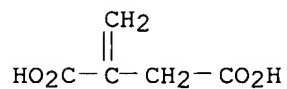


CM 4

CRN 26248-95-3  
CMF C6 H8 O4  
CCI IDS

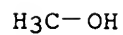
CM 5

CRN 97-65-4  
CMF C5 H6 O4



CM 6

CRN 67-56-1  
CMF C H4 O

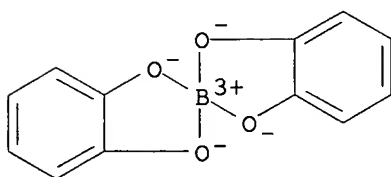




IT 16971-82-7, Nocceler PR  
 RL: CAT (Catalyst use); USES (Uses)  
 (vulcanization accelerator; acrylic **elastomer**-benzimidazole  
 compn. for sealing materials with improved compression set)  
 RN 16971-82-7 HCAPLUS  
 CN Borate(1-), bis[1,2-benzenediolato(2-)-.kappa.O,.kappa.O']-, (T-4)-,  
 hydrogen, compd. with N,N'-bis(2-methylphenyl)guanidine (1:1) (9CI) (CA  
 INDEX NAME)

CM 1

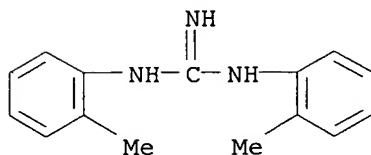
CRN 22450-98-2  
 CMF C12 H8 B O4 . H  
 CCI CCS



● H<sup>+</sup>

CM 2

CRN 97-39-2  
 CMF C15 H17 N3



L57 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1999:331452 HCAPLUS  
 DN 131:20148  
 TI Acrylic **elastomer** compositions with good scorch stability and  
 low compression permanent set  
 IN Moriyama, Iwao; Okabe, Atsushi  
 PA Nippon Mektron Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

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 PI JP 11140264 A2 19990525 JP 1997-316300 19971031  
 PRAI JP 1997-316300 19971031

AB The compns., which are useful for sealing materials, comprise (A) 100 parts unsatd. dicarboxylic acid monoalkyl ester-copolymer. acrylic **elastomers**, (B) 0.1-5 parts diamine vulcanizing agents, (C) 0.1-10 parts guanidine vulcanizers, and (D) 0.1-3 parts benzothiazolylsulfenamide vulcanizers. Thus, a compn. contg. Bu acrylate-Et acrylate-2-methoxyethyl acrylate-monoethyl maleate **rubber** 100, stearic acid 1, 4,4'-bis(.alpha.,.alpha.-dimethylbenzyl)diphenylamine 2, carbon black 60, 4,4'-diaminodiphenyl ether 0.7, di-o-tolylguanidine 2, and N-cyclohexyl-2-benzothiazolylsulfenamide 0.5 part was kneaded, followed by press-vulcanization at 180.degree. for 8 min and secondary vulcanization at 175.degree. for 4 h to give an **elastomer** compn. with Mooney viscosity 47 pts, scorch time 13 min, and compression permanent set (150.degree. for 70 h) 9 and 12% as a sheet and an O-ring.

IC ICM C08L033-08  
 ICS C08K005-17

CC 39-15 (Synthetic **Elastomers** and Natural Rubber)

ST acrylic **elastomer** unsatd carboxylic alkyl ester copolymer; diamine vulcanizing agent acrylic **elastomer**; guanidine vulcanizer acrylic **elastomer** scorch; benzothiazolyl sulfenamide vulcanizer acrylic **elastomer**; compression permanent set acrylic **elastomer** vulcanization

IT Synthetic **rubber**, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(Bu acrylate-Et acrylate-methoxyethyl acrylate-mono-Bu maleate; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)

IT Synthetic **rubber**, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(Bu acrylate-Et acrylate-methoxyethyl acrylate-mono-Et fumarate-neopentyl glycol diacrylate; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)

IT Synthetic **rubber**, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(Bu acrylate-Et acrylate-methoxyethyl acrylate-mono-Et fumarate-styrene; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)

IT Synthetic **rubber**, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(Bu acrylate-Et acrylate-methoxyethyl acrylate-mono-Et fumarate; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)

IT Synthetic **rubber**, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(Bu acrylate-Et acrylate-methoxyethyl acrylate-mono-Et maleate;

- vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT Synthetic **rubber**, preparation  
 RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
 PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (Bu acrylate-Et acrylate-methoxyethyl acrylate-mono-Me fumarate; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT Synthetic **rubber**, preparation  
 RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
 PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (Bu acrylate-Et acrylate-methoxyethyl acrylate-mono-Me itaconate; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT Synthetic **rubber**, preparation  
 RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
 PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (Bu acrylate-Et acrylate-methoxyethyl acrylate-mono-Me maleate; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT Synthetic **rubber**, preparation  
 RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
 PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (Bu acrylate-Et acrylate-mono-Bu fumarate; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT Synthetic **rubber**, preparation  
 RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
 PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (Bu acrylate-methoxyethyl acrylate-mono-Bu fumarate; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT Synthetic **rubber**, preparation  
 RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
 PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (Et acrylate-methoxyethyl acrylate-mono-Bu fumarate; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT Seals (parts)  
 (O-rings; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT Synthetic **rubber**, preparation  
 RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
 PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (acrylonitrile-Bu acrylate-Et acrylate-methoxyethyl acrylate-mono-Et fumarate; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT Polysiloxanes, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (amino-contg., vulcanizing agent; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set

- for seals)
- IT Vulcanization accelerators and agents  
(diamines, guanidines, and benzothiazolylsulfenamides; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT Amines, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(diamines, vulcanizing agents; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT Synthetic **rubber**, properties  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(ethylene-Me acrylate-mono-Me maleate, Vamac HG; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT Seals (parts)  
Vulcanization  
(vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT **136200-90-3P**, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monobutyl maleate copolymer **222184-87-4P**, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl maleate copolymer **222409-87-2P**, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monomethyl fumarate copolymer **222409-97-4P**, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl fumarate copolymer **222410-02-8P**, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl fumarate-neopentyl glycol diacrylate copolymer **222410-07-3P**, Butyl acrylate-2-methoxyethyl acrylate-monobutyl fumarate copolymer **222410-11-9P**, Butyl acrylate-ethyl acrylate-monobutyl fumarate copolymer **222410-16-4P**, Ethyl acrylate-2-methoxyethyl acrylate-monobutyl fumarate copolymer **222410-20-0P**, Acrylonitrile-butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl fumarate copolymer **222410-25-5P**, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl fumarate-styrene copolymer **225938-88-5P**, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monomethyl maleate copolymer **225938-89-6P**, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monomethyl **itaconate** copolymer  
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(**rubber**; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT 95-33-0, N-Cyclohexyl-2-benzothiazolylsulfenamide 97-39-2, Di-o-tolylguanidine 101-80-4 102-77-2 140-73-8, N,N'-Dicinnamylidene-1,6-hexanediamine 143-06-6, Hexamethylenediamine carbamate 621-95-4, 4,4'-Ethylenedianiline 2687-27-6 2716-10-1, 4,4'-(p-Phenylenediisopropylidene)dianiline **16971-82-7** 69563-88-8, 2,2-Bis[4-(4-aminophenoxy)phenyl]hexafluoropropane 97917-34-5  
RL: MOA (Modifier or additive use); USES (Uses)  
(vulcanizing agent; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)
- IT **136200-90-3P**, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monobutyl maleate copolymer **222184-87-4P**, Butyl acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl maleate copolymer **222409-87-2P**, Butyl acrylate-ethyl

acrylate-2-methoxyethyl acrylate-monomethyl fumarate copolymer  
**222409-97-4P**, Butyl acrylate-ethyl acrylate-2-methoxyethyl  
 acrylate-monoethyl fumarate copolymer **222410-02-8P**, Butyl  
 acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl  
 fumarate-neopentyl glycol diacrylate copolymer **222410-07-3P**,  
 Butyl acrylate-2-methoxyethyl acrylate-monobutyl fumarate copolymer  
**222410-11-9P**, Butyl acrylate-ethyl acrylate-monobutyl fumarate  
 copolymer **222410-16-4P**, Ethyl acrylate-2-methoxyethyl  
 acrylate-monobutyl fumarate copolymer **222410-20-0P**,  
 Acrylonitrile-butyl acrylate-ethyl acrylate-2-methoxyethyl  
 acrylate-monoethyl fumarate copolymer **222410-25-5P**, Butyl  
 acrylate-ethyl acrylate-2-methoxyethyl acrylate-monoethyl fumarate-styrene  
 copolymer **225938-88-5P**, Butyl acrylate-ethyl  
 acrylate-2-methoxyethyl acrylate-monomethyl maleate copolymer  
**225938-89-6P**, Butyl acrylate-ethyl acrylate-2-methoxyethyl  
 acrylate-monomethyl **itaconate** copolymer  
 RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);  
 PRP (Properties); TEM (Technical or engineered material use); **PREP**  
 (Preparation); USES (Uses)

(**rubber**; vulcanized acrylic **elastomer** compns. with  
 good scorch stability and low compression permanent set for seals)

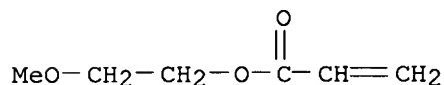
RN 136200-90-3 HCAPLUS

CN 2-Butenedioic acid (2Z)-, monobutyl ester, polymer with butyl  
 2-propenoate, ethyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI)  
 (CA INDEX NAME)

CM 1

CRN 3121-61-7

CMF C6 H10 O3

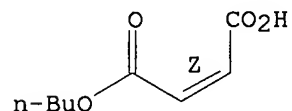


CM 2

CRN 925-21-3

CMF C8 H12 O4

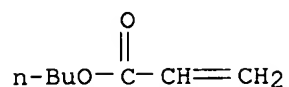
Double bond geometry as shown.



CM 3

CRN 141-32-2

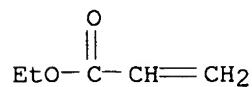
CMF C7 H12 O2



CM 4

CRN 140-88-5

CMF C5 H8 O2



RN 222184-87-4 HCAPLUS

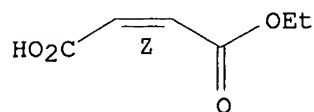
CN 2-Butenedioic acid (2Z)-, monoethyl ester, polymer with butyl 2-propenoate, ethyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI)  
(CA INDEX NAME)

CM 1

CRN 3990-03-2

CMF C6 H8 O4

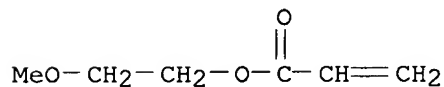
Double bond geometry as shown.



CM 2

CRN 3121-61-7

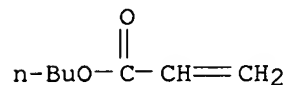
CMF C6 H10 O3



CM 3

CRN 141-32-2

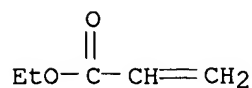
CMF C7 H12 O2



CM 4

CRN 140-88-5

CMF C5 H8 O2



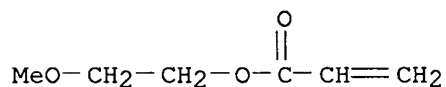
RN 222409-87-2 HCAPLUS

CN 2-Butenedioic acid (2E)-, monomethyl ester, polymer with butyl  
2-propenoate, ethyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI)  
(CA INDEX NAME)

CM 1

CRN 3121-61-7

CMF C6 H10 O3

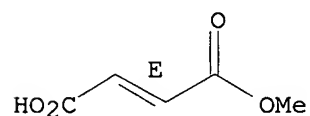


CM 2

CRN 2756-87-8

CMF C5 H6 O4

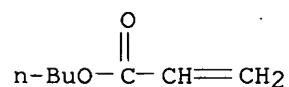
Double bond geometry as shown.



CM 3

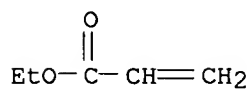
CRN 141-32-2

CMF C7 H12 O2



CM 4

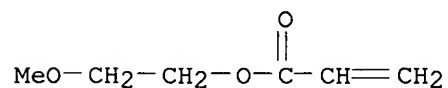
CRN 140-88-5  
CMF C5 H8 O2



RN 222409-97-4 HCAPLUS  
CN 2-Butenedioic acid (2E)-, monoethyl ester, polymer with butyl  
2-propenoate, ethyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI)  
(CA INDEX NAME)

CM 1

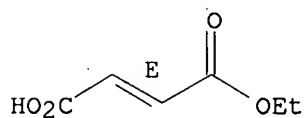
CRN 3121-61-7  
CMF C6 H10 O3



CM 2

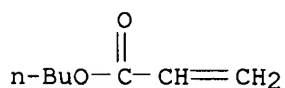
CRN 2459-05-4  
CMF C6 H8 O4

Double bond geometry as shown.



CM 3

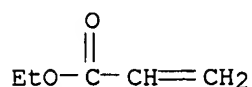
CRN 141-32-2  
CMF C7 H12 O2



CM 4

CRN 140-88-5  
CMF C5 H8 O2





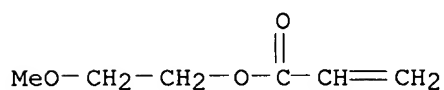
RN 222410-02-8 HCAPLUS

CN 2-Butenedioic acid (2E)-, monoethyl ester, polymer with butyl  
2-propenoate, 2,2-dimethyl-1,3-propanediyl di-2-propenoate, ethyl  
2-propenoate and 2-methoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 3121-61-7

CMF C6 H10 O3

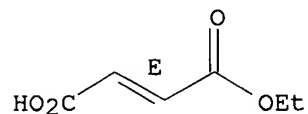


CM 2

CRN 2459-05-4

CMF C6 H8 O4

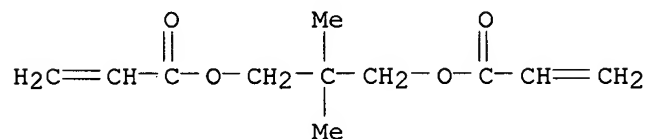
Double bond geometry as shown.



CM 3

CRN 2223-82-7

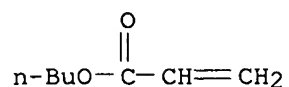
CMF C11 H16 O4



CM 4

CRN 141-32-2

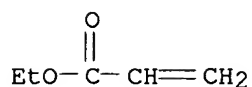
CMF C7 H12 O2



CM 5

CRN 140-88-5

CMF C5 H8 O2



RN 222410-07-3 HCAPLUS

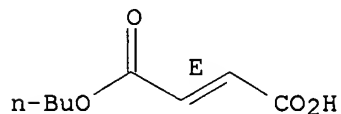
CN 2-Butenedioic acid (2E)-, monobutyl ester, polymer with butyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 16062-88-7

CMF C8 H12 O4

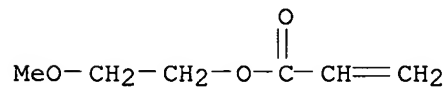
Double bond geometry as shown.



CM 2

CRN 3121-61-7

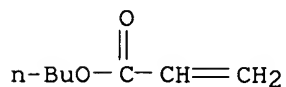
CMF C6 H10 O3



CM 3

CRN 141-32-2

CMF C7 H12 O2

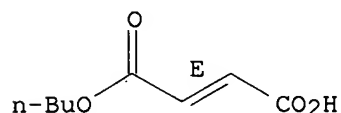


RN 222410-11-9 HCAPLUS  
 CN 2-Butenedioic acid (2E)-, monobutyl ester, polymer with butyl 2-propenoate and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

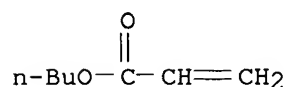
CRN 16062-88-7  
 CMF C8 H12 O4

Double bond geometry as shown.



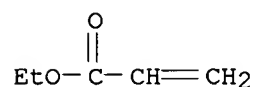
CM 2

CRN 141-32-2  
 CMF C7 H12 O2



CM 3

CRN 140-88-5  
 CMF C5 H8 O2

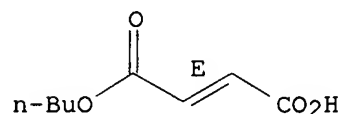


RN 222410-16-4 HCAPLUS  
 CN 2-Butenedioic acid (2E)-, monobutyl ester, polymer with ethyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

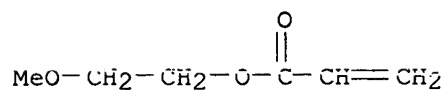
CRN 16062-88-7  
 CMF C8 H12 O4

Double bond geometry as shown.



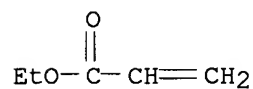
CM 2

CRN 3121-61-7  
CMF C6 H10 O3



CM 3

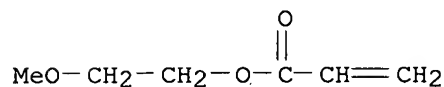
CRN 140-88-5  
CMF C5 H8 O2



RN 222410-20-0 HCAPLUS  
CN 2-Butenedioic acid (2E)-, monoethyl ester, polymer with butyl  
2-propenoate, ethyl 2-propenoate, 2-methoxyethyl 2-propenoate and  
2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

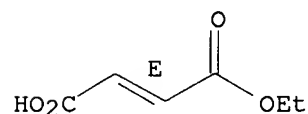
CRN 3121-61-7  
CMF C6 H10 O3



CM 2

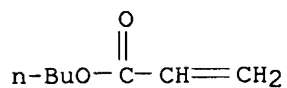
CRN 2459-05-4  
CMF C6 H8 O4

Double bond geometry as shown.



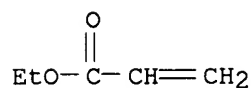
CM 3

CRN 141-32-2  
CMF C7 H12 O2



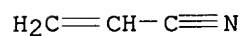
CM 4

CRN 140-88-5  
CMF C5 H8 O2



CM 5

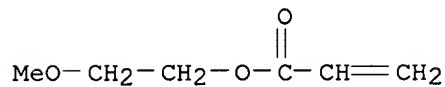
CRN 107-13-1  
CMF C3 H3 N



RN 222410-25-5 HCAPLUS  
CN 2-Butenedioic acid (2E)-, monoethyl ester, polymer with butyl  
2-propenoate, ethenylbenzene, ethyl 2-propenoate and 2-methoxyethyl  
2-propenoate (9CI) (CA INDEX NAME)

CM 1

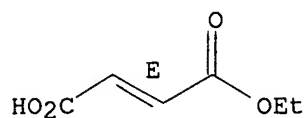
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CMF C6 H10 O3



CM 2

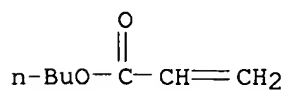
CRN 2459-05-4  
CMF C6 H8 O4

Double bond geometry as shown.



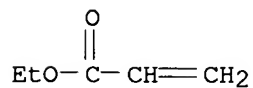
CM 3

CRN 141-32-2  
CMF C7 H12 O2



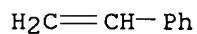
CM 4

CRN 140-88-5  
CMF C5 H8 O2



CM 5

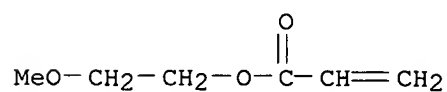
CRN 100-42-5  
CMF C8 H8



RN 225938-88-5 HCAPLUS  
CN 2-Butenedioic acid (2Z)-, monomethyl ester, polymer with butyl  
2-propenoate, ethyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI)  
(CA INDEX NAME)

CM 1

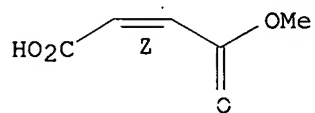
CRN 3121-61-7  
CMF C6 H10 O3



CM 2

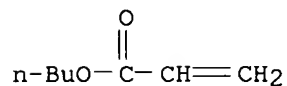
CRN 3052-50-4  
CMF C5 H6 O4

Double bond geometry as shown.



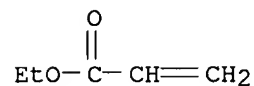
CM 3

CRN 141-32-2  
CMF C7 H12 O2



CM 4

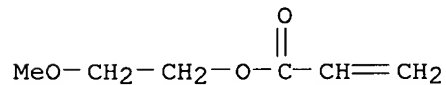
CRN 140-88-5  
CMF C5 H8 O2



RN 225938-89-6 HCAPLUS  
CN Butanedioic acid, methylene-, monomethyl ester, polymer with butyl 2-propenoate, ethyl 2-propenoate and 2-methoxyethyl 2-propenoate (9CI)  
(CA INDEX NAME)

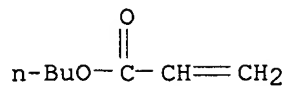
CM 1

CRN 3121-61-7  
CMF C6 H10 O3



CM 2

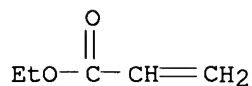
CRN 141-32-2  
CMF C7 H12 O2



CM 3

CRN 140-88-5

CMF C5 H8 O2



CM 4

CRN 26248-95-3

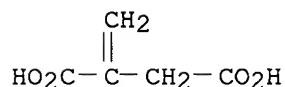
CMF C6 H8 O4

CCI IDS

CM 5

CRN 97-65-4

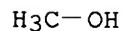
CMF C5 H6 O4



CM 6

CRN 67-56-1

CMF C H4 O



IT 16971-82-7

RL: MOA (Modifier or additive use); USES (Uses)

(vulcanizing agent; vulcanized acrylic **elastomer** compns. with good scorch stability and low compression permanent set for seals)

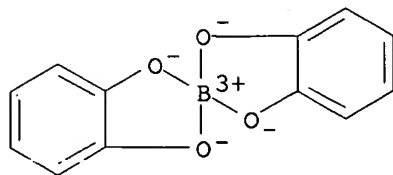
RN 16971-82-7 HCAPLUS

CN Borate(1-), bis[1,2-benzenediolato(2-)-.kappa.O,.kappa.O']-, (T-4)-, hydrogen, compd. with N,N'-bis(2-methylphenyl)guanidine (1:1) (9CI) (CA INDEX NAME)

CM 1



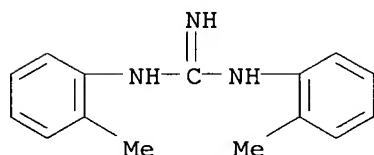
CRN 22450-98-2  
CMF C12 H8 B O4 . H  
CCI CCS



● H<sup>+</sup>

CM 2

CRN 97-39-2  
CMF C15 H17 N3



L57 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1995:550905 HCAPLUS  
DN 122:326083  
TI Electrochromic polymeric solid films, manufacturing electrochromic devices using such solid films, and processing for making such solid films and devices  
IN Varaprasad, Desaraju V.; Agrawal, Anoop; Zhao, Mingtang; Allemand, Pierre-Marc; Dornan, Craig Allen; Lynam, Niall R.  
PA Donnelly Corp., USA  
SO Eur. Pat. Appl., 66 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 612826	A1	19940831	EP 1994-301365	19940225
	EP 612826	B1	20001004		
	R: DE, FR, GB, IE, IT				
	EP 1004649	A2	20000531	EP 1999-125856	19940225
	EP 1004649	A3	20000726		
	R: DE, FR, GB, IT, IE				
	JP 07070218	A2	19950314	JP 1994-68873	19940228
	US 6154306	A	20001128	US 1999-350930	19990712

US 2002012156 A1 20020131 US 2001-835328 20010417  
 PRAI US 1993-23675 A 19930226  
 US 1994-193557 A 19940208  
 EP 1994-301365 A3 19940225  
 US 1995-406663 B1 19950320  
 US 1998-7044 A1 19980114  
 US 1999-251937 A1 19990218  
 AB Electrochromic monomer compns. are described which comprise .gtoreq.1 anodic electrochromic compd., .gtoreq.1 cathodic electrochromic compd., a monomer, and a plasticizer which can be converted by exposure to electromagnetic radiation into electrochromic polymeric films. The resulting films and devices (e.g., electrochromic mirrors, automobile windshields, and windows) are also described.  
 IC ICM C09K009-02  
 ICS G02F001-15  
 CC 73-12 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)  
 Section cross-reference(s): **38**  
 IT 61-73-4, Methylene Blue 92-84-2, Phenothiazine 95-14-7, 1H-Benzotriazole 95-14-7D, 1H-Benzotriazole, derivs. 102-54-5, Ferrocene 119-61-9, Benzophenone, uses 119-61-9D, Benzophenone, derivs. 131-53-3, CYASORB UV 24 131-54-4, UVINUL D 49 131-56-6, UVINUL 400 131-57-7, UVINUL M 40 531-53-3, Azure A 531-55-5, Azure B 531-57-7, Azure C 550-82-3, Resazurin 581-64-6, Thionin 635-78-9, Resorufin 956-48-9, 2,6-Dichloroindophenol 1291-47-0, Dimethyl ferrocene 1316-98-9, tert-Butyl ferrocene 1562-85-2, Gallocyanine 1562-90-9, Celestine Blue 1843-05-6, Uvinul M 408 1915-49-7, 2-Hydroxyphenoxazin-3-one 1916-55-8 1916-59-2, 2-Aminophenoxazin-3-one 1916-62-7 1916-63-8, Phenoxazin-3-one 1924-19-2, 5H-Benzo[a]phenoxazin-5-one 2440-22-4, TINUVIN P 2516-05-4, Methylene Violet 3864-99-1, TINUVIN 327 5232-99-5, UVINUL N 35 6197-30-4, UVINUL N 539 7385-67-3, Nile Red 15546-75-5, 5,10-Dihydro-5,10-dimethylphenazine 25973-55-1, TINUVIN 328 31366-25-3, Tetrathiafulvalene 31904-29-7, n-Butyl ferrocene 33209-90-4, 2-Methylphenothiazin-3-one 33869-21-5 36305-51-8, Ethylviologen perchlorate **36530-85-5** 42355-92-0 163066-28-2 163066-30-6 163066-32-8 163066-35-1  
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (monomer compns. for the prodn. of electrochromic polymeric solid films and electrochromic devices using the films and processing for making the films and devices)  
 IT 50-99-7D, D-Glucose, allyl ethers 56-81-5D, 1,2,3-Propanetriol, derivs 57-50-1D, Sucrose, allyl ethers 57-50-1D, Sucrose, cyanoethylated 68-12-2, uses 75-05-8, Acetonitrile, uses 77-99-6 78-93-3, Methylene ketone, uses 80-62-6 96-05-9 96-09-3 96-33-3 96-48-0, .gamma.-Butyrolactone 96-49-1, Ethylene carbonate 97-63-2 **97-65-4D, Itaconic acid, diesters** 97-88-1, n-Butyl methacrylate 97-90-5 98-86-2, Acetophenone, uses 101-43-9, Cyclohexyl methacrylate 103-11-7, 2-Ethylhexyl acrylate 106-74-1, 2-Ethoxyethyl acrylate 106-90-1, Glycidyl acrylate 106-91-2 108-32-7 108-94-1, Cyclohexanone, uses 109-16-0 109-17-1, Tetraethylene glycol dimethacrylate 109-78-4, 3-Hydroxypropionitrile 109-93-3, Divinyl ether 111-96-6, 2-Methoxyethyl ether 112-49-2, Triethylene glycol dimethyl ether 115-77-5, uses 120-92-3, Cyclopentanone 121-39-1, Ethyl-3-phenyl glycidate 123-42-2 140-88-5 141-32-2 142-09-6 142-90-5 285-67-6, Cyclopentene oxide 286-20-4, Cyclohexene oxide 502-44-3D, Caprolactone, esters with acrylic acid 517-23-7 544-13-8,

Glutaronitrile 689-12-3, Isopropyl acrylate 818-61-1 868-77-9  
 872-93-5, 3-Methylsulfolane 923-26-2 925-60-0 999-21-3 999-61-1  
 1070-70-8 1189-08-8, 1,3-Butylene glycol dimethacrylate 1321-74-0,  
 Divinyl benzene, uses 1330-61-6, IsoDecyl acrylate 1656-48-0,  
 3,3'-Oxydipropionitrile 1680-21-3, Triethylene glycol diacrylate  
 1985-51-9, Neopentyl glycol dimethacrylate 2082-81-7, 1,4-Butanediol  
 dimethacrylate 2141-62-0, 3-Ethoxypropionitrile 2156-97-0, Lauryl  
 acrylate 2210-28-8, n-Propyl methacrylate 2223-82-7, Neopentyl glycol  
 diacrylate 2274-11-5, Ethylene glycol diacrylate 2351-43-1  
 2358-84-1, Diethylene glycol dimethacrylate 2370-63-0, 2-Ethoxyethyl  
 methacrylate 2386-87-0 2399-48-6, Tetrahydrofurfuryl acrylate  
 2424-58-0, Allyl maleate 2425-79-8, 1,4-Butanediol diglycidyl ether  
 2455-24-5, Tetrahydrofurfuryl methacrylate 2461-46-3,  
 4,4'-Bis-(2,3-epoxypropoxy)biphenyl 2495-25-2, Tridecyl methacrylate  
 2495-35-4, Benzyl acrylate 2499-59-4, n-Octyl acrylate 2499-95-8,  
 n-Hexyl acrylate 2550-26-7, Benzylacetone 2761-08-2, 3-Hydroxypropyl  
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 Diallyl itaconate 2807-54-7, Diallyl fumarate 2849-98-1  
 2998-08-5, sec-Butyl acrylate 2998-18-7, sec-Butyl methacrylate  
 2998-23-4, n-Pentyl acrylate 3066-71-5, Cyclohexyl acrylate 3121-61-7,  
 2-Methoxyethyl acrylate 3290-92-4, Trimethylol propane trimethacrylate  
 3524-68-3 4016-14-2, Glycidyl isopropyl ether 4074-88-8, Diethylene  
 glycol diacrylate 4553-62-2, 2-Methylglutaronitrile 4655-34-9,  
 Isopropyl methacrylate 4813-57-4 4986-89-4 5380-87-0, Furfuryl  
 glycidyl ether 5888-33-5, Isobornyl acrylate 5919-74-4 6606-59-3  
 6976-93-8, Methoxyethyl methacrylate 7042-93-5 7320-37-8, 1,2-Epoxy  
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 7534-94-3, Isobornyl methacrylate 7559-82-2, Propylene glycol  
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 Triethylene glycol monoacrylate 17831-71-9 19485-03-1, 1,3-Butylene  
 glycol diacrylate 25068-38-6 25085-98-7, UVR-6110 25085-98-7,  
 Cyracure UVR 6100 25151-33-1, Propylene glycol diacrylate  
**25249-16-5**, Polyethylene glycol monomethacrylate 25322-68-3,  
 Carbowax 1450 25322-68-3 **25721-76-0**, Polyethylene glycol  
 dimethacrylate 26403-58-7 26570-48-9, Polyethylene glycol diacrylate  
 26856-69-9, Methoxypropionitrile 26915-72-0 27138-13-2, Divinyl  
 toluene 28481-52-9 29590-42-9, IsoOctyl acrylate 29964-84-9,  
 Isodecyl methacrylate 30401-87-7 31017-51-3 32171-39-4 32360-05-7  
 35838-12-1 39420-45-6, Polypropylene glycol monomethacrylate  
 40220-08-4, Tris(2-hydroxyethyl)-isocyanurate triacrylate 41637-38-1,  
 Ethoxylated bisphenol A dimethacrylate 42978-66-5, Tripropylene glycol  
 diacrylate 48145-04-6, 2-Phenoxyethyl acrylate 50853-28-6, Glycerol  
 monomethacrylate 50858-51-0, Polypropylene glycol monoacrylate  
 52357-34-3, Glycerol monoacrylate 53814-24-7, CN 104 (polymer)  
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 Dipentaerythritol pentaacrylate 63957-64-2, DEN 438 63957-65-3, DEN  
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 90598-76-8, Norland Optical **Adhesive** 61 94159-12-3  
 95078-15-2 99402-95-6, Norland Optical **Adhesive** 65  
 103637-50-9, 1,3-Bis(4-benzoyl-3-hydroxyphenoxy)-2-propyl acrylate  
 105760-11-0 106387-88-6, ENVIBAR UV 1244 111483-45-5, Hydroxyethyl  
 cellulose acrylate 141489-64-7, CN 104A80 142106-72-7, Norland Optical  
**Adhesive** 68 144168-22-9 144637-60-5, Craynor CN 112C60  
 149315-73-1, CN 964 152206-21-8, CN 965 156409-75-5, Craynor CN 114  
 163066-33-9 163066-34-0 163206-56-2, Quick Cure B 565 163206-57-3,  
 Quick Cure B 566 163206-58-4, Quick Cure B 576 163206-60-8, Quick Cure

BT 5376 163206-62-0, Carbowax 540 163206-63-1, Carbowax 900  
 163206-65-3, CN 120 163206-66-4, CN 953 163206-67-5, CN 955  
 163206-68-6, CN 960 163206-69-7, CN 962 163206-70-0, CN 114A80  
 163206-71-1, CN 120A75 163206-72-2, CN 963A80 163206-73-3, CN 965A80  
 163206-74-4, CN 966A80 163206-75-5, CN 104B80 163206-76-6, CN 120B80  
 163206-77-7, CN 104C75 163206-78-8, CN 120C80 163206-80-2, CN 114D75  
 163206-81-3, CN 120D80 163206-82-4, CN 114E80 163206-83-5, CN 961E75  
 163206-84-6, CN 963E75 163206-85-7, CN 964E75 163206-86-8, CN 961H90  
 163206-87-9, CN 966H90 163206-88-0, CN 966J75 163206-89-1, CN 120S85  
 163293-55-8, DER 755 163293-92-3, Impruv LV Plotting Compound  
 163293-96-7, Light-Weld 478 163293-98-9, Locquic Activator 707  
 163294-36-8, Sarbox SB 400 163294-37-9, Sarbox SB 401 163294-38-0,  
 Sarbox SB 500 163294-39-1, Sarbox SB 501 163294-40-4, Sarbox SB 600  
 163294-41-5, Sarbox SB 500E50 163294-42-6, Sarbox SB 510E35  
 163294-43-7, Sarbox SB 520E35 163294-44-8, Sarbox SB 500K60  
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 triacrylate

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); TEM  
 (Technical or engineered material use); PROC (Process); RACT (Reactant or  
 reagent); USES (Uses)

(monomer compns. for the prodn. of electrochromic polymeric solid films  
 and electrochromic devices using the films and processing for making  
 the films and devices)

# IT 36530-85-5

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical  
 process); TEM (Technical or engineered material use); PROC (Process); USES  
 (Uses)

(monomer compns. for the prodn. of electrochromic polymeric solid films  
 and electrochromic devices using the films and processing for making  
 the films and devices)

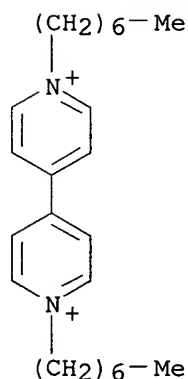
RN 36530-85-5 HCAPLUS

CN 4,4'-Bipyridinium, 1,1'-diheptyl-, bis[tetrafluoroborate(1-)] (9CI) (CA  
 INDEX NAME)

CM 1

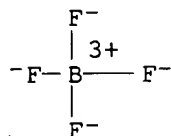
CRN 47503-76-4

CMF C24 H38 N2

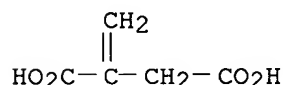


CM 2

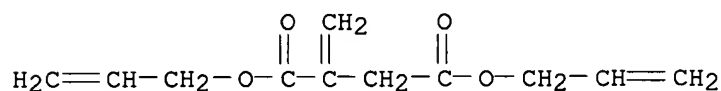
CRN 14874-70-5  
CMF B F4  
CCI CCS



IT 97-65-4D, Itaconic acid, diesters 2767-99-9,  
Diallyl itaconate 25249-16-5, Polyethylene glycol  
monomethacrylate 25721-76-0, Polyethylene glycol dimethacrylate  
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); TEM  
(Technical or engineered material use); PROC (Process); RACT (Reactant or  
reagent); USES (Uses)  
(monomer compns. for the prodn. of electrochromic polymeric solid films  
and electrochromic devices using the films and processing for making  
the films and devices)  
RN 97-65-4 HCAPLUS  
CN Butanedioic acid, methylene- (9CI) (CA INDEX NAME)



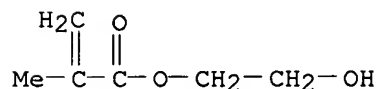
RN 2767-99-9 HCAPLUS  
CN Butanedioic acid, methylene-, di-2-propenyl ester (9CI) (CA INDEX NAME)



RN 25249-16-5 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, homopolymer (9CI) (CA  
INDEX NAME)

CM 1

CRN 868-77-9  
CMF C6 H10 O3

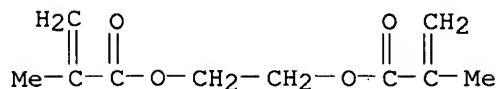


RN 25721-76-0 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, homopolymer (9CI) (CA  
INDEX NAME)

CM 1

CRN 97-90-5

CMF C10 H14 O4



L57 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1986:10654 HCAPLUS

DN 104:10654

TI **Adhesive** film-forming materials for dental use

IN Kawaguchi, Toshio; Kunimoto, Shinichiro; Kusumoto, Koji

PA Tokuyama Soda Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

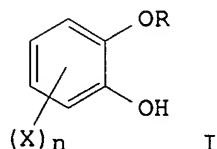
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60133078	A2	19850716	JP 1983-239940	19831221
	JP 63016433	B4	19880408		
PRAI	JP 1983-239940		19831221		
GI					



AB **Adhesive**, film-forming materials consist of: (1) carboxyl group- or anhydride-group contg. high mol.-wt. substances, (2) .gtoreq.1 organometallic compds. contg. Ti, Al, Si, Zr, or B,, and (3) catechol derivs. I (R = alkyl, allyl; X = H, halogen, alkyl, alkenyl; n = 1-4). These cements are used without etching the tooth with chems. such as phosphates. Thus, 4.9 g maleic anhydride and 5.2 g styrene were polymerized to give maleic anhydride-styrene copolymer [9011-13-6], which was hydrolyzed to give maleic acid-styrene copolymer [25300-64-5]. A dental cement comprised liq. A contg. maleic acid-styrene copolymer 10 and EtOH 90 parts, and liq. B contg. tetrabutyltitanate [5593-70-4] 2, guaiacol [90-05-1] 1 and EtOH 100 parts. The **adhesive** strength of an 1:1 mixt. of liq. A and liq. B was 37.8 kg/cm<sup>2</sup>.

IC ICM C09J003-00

ICS A61K006-08

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 37

IT 78-10-4 90-05-1 94-71-3 97-53-0 97-54-1 120-80-9D, derivs.

121-43-7 555-31-7 579-60-2 688-74-4 2530-85-0  
 3085-30-1 4766-57-8 5128-29-0 5575-43-9 5593-70-4 7425-80-1  
 7429-90-5D, org. compds. 7440-21-3D, org. compds. 7440-32-6D, org.  
 compds. 7440-67-7D, org. compds. 13421-85-7 18267-08-8 77102-92-2  
 80778-56-9 99542-05-9

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (dental cements contg.)

IT 9011-13-6P 25266-27-7P 25722-45-6P 26298-63-5P 26426-80-2P  
 30374-71-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (prepn. and hydrolysis of)

IT 9011-13-6DP, hydrolyzed 24980-59-4P 25266-27-7DP, hydrolyzed  
 25300-64-5P 25722-45-6DP, hydrolyzed 26007-37-4P  
 26298-63-5DP, hydrolyzed 26426-80-2DP, hydrolyzed 26426-80-2P  
 28062-21-7P 28327-80-2P 30374-71-1DP, hydrolyzed 38193-45-2P  
 38809-92-6P 58247-86-2P 90751-14-7P

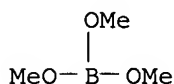
RL: THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (prepn. of, for dental cements)

IT 121-43-7 688-74-4

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (dental cements contg.)

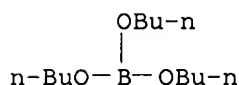
RN 121-43-7 HCAPLUS

CN Boric acid (H3BO3), trimethyl ester (8CI, 9CI) (CA INDEX NAME)



RN 688-74-4 HCAPLUS

CN Boric acid (H3BO3), tributyl ester (8CI, 9CI) (CA INDEX NAME)



IT 26007-37-4P

RL: THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (prepn. of, for dental cements)

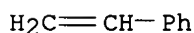
RN 26007-37-4 HCAPLUS

CN Butanedioic acid, methylene-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

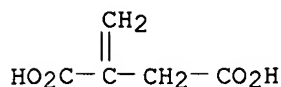
CM 1

CRN 100-42-5

CMF C8 H8

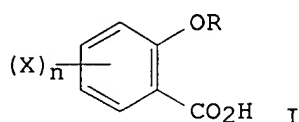


CM 2

CRN 97-65-4  
CMF C5 H6 O4

L57 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1986:10652 HCAPLUS  
 DN 104:10652  
 TI **Adhesive** film-forming materials for dental use  
 IN Kawaguchi, Toshio; Kunimoto, Shinichiro; Kusumoto, Koji  
 PA Tokuyama Soda Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 17 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60135470	A2	19850718	JP 1983-242059	19831223
	JP 05029666	B4	19930506		
PRAI	JP 1983-242059		19831223		
GI					



AB **Adhesive**, film-forming materials consist of: (1) carboxyl group- or anhydride-group contg. high mol.-wt. substances, (2) org. compds. contg. Al, Si, Zr, and/or B, (3) benzoic acid derivs. I (n = 0-4; X = alkyl, alkoxy, carboxyl, acylalkyl; R = alkyl, haloalkyl, alkoxyalkyl, carboxyalkyl, etc.). A mixt. contg. compds. described in (1), (2), and (3) is stable >1 yr. Thus, 5.2 g styrene and 4.9 g maleic anhydride were polymd. to give maleic anhydride-styrene copolymer [9011-13-6], which was hydrolyzed to give maleic acid-styrene copolymer [25300-64-5]. A dental cement consisted of liq. A contg. maleic acid-styrene copolymer 10 and EtOH 90 parts, and liq. B contg. isopropylaluminum [555-31-7] 2, o-ethoxybenzoic acid [134-11-2] 1 and EtOH 100 parts. The **adhesive** strength of a 1:1 mixt. of liq. A and liq. B was 29.5 kg/cm<sup>2</sup>.

IC ICM C09J003-14  
ICS A61K006-08

CC 63-7 (Pharmaceuticals)  
Section cross-reference(s): 37



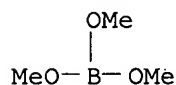
IT 50-78-2 65-85-0D, derivs. 78-10-4 **121-43-7** 134-11-2  
 555-31-7 556-91-2 578-19-8 579-75-9 635-53-0 **688-74-4**  
 2100-31-4 2243-42-7 2269-22-9 2530-85-0 3085-30-1 3453-79-0  
 4766-57-8 5876-91-5 6338-04-1 7429-90-5D, org. compds. 7440-21-3D,  
 org. compds. 7440-42-8D, org. compds. 7440-67-7D, org. compds.  
 13421-85-7 14389-86-7 18267-08-8 20661-30-7 21905-73-7  
 33188-69-1 59086-52-1 96881-90-2 96881-91-3 96881-93-5  
 99542-02-6 99542-03-7 99542-04-8 99544-46-4  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (dental cements contg.)

IT 9011-13-6P 25266-27-7P 25722-45-6P 26298-63-5P 26426-80-2P  
 30374-71-1P  
 RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP**  
**(Preparation)**; RACT (Reactant or reagent)  
 (prepn. and hydrolysis of)

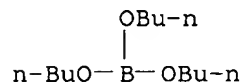
IT 9011-13-6DP, hydrolyzed 24980-59-4P 25266-27-7DP, hydrolyzed  
 25300-64-5P 25722-45-6DP, hydrolyzed **26007-37-4P**  
 26298-63-5DP, hydrolyzed 26426-80-2DP, hydrolyzed 26426-80-2P  
 28062-21-7P 28327-80-2P 30374-71-1DP, hydrolyzed 38193-45-2P  
 38809-92-6P 58247-86-2P 90751-14-7P  
 RL: THU (Therapeutic use); BIOL (Biological study); **PREP**  
**(Preparation)**; USES (Uses)  
 (prepn. of, for dental cements)

IT **121-43-7 688-74-4**  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (dental cements contg.)

RN 121-43-7 HCAPLUS  
 CN Boric acid (H3BO3), trimethyl ester (8CI, 9CI) (CA INDEX NAME)



RN 688-74-4 HCAPLUS  
 CN Boric acid (H3BO3), tributyl ester (8CI, 9CI) (CA INDEX NAME)

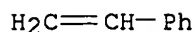


IT **26007-37-4P**  
 RL: THU (Therapeutic use); BIOL (Biological study); **PREP**  
**(Preparation)**; USES (Uses)  
 (prepn. of, for dental cements)

RN 26007-37-4 HCAPLUS  
 CN Butanedioic acid, methylene-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

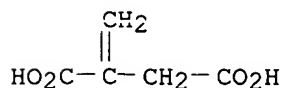
CRN 100-42-5  
 CMF C8 H8



CM 2

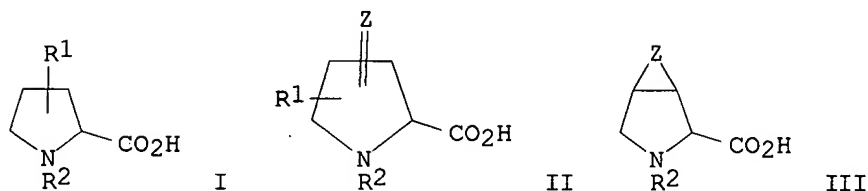
CRN 97-65-4

CMF C5 H6 O4



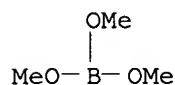
L57 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1986:10651 HCAPLUS  
 DN 104:10651  
 TI Film-forming dental cements  
 IN Kawaguchi, Toshio; Kunitomo, Shinichiro; Kusumoto, Koji  
 PA Tokuyama Soda Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 17 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60135469	A2	19850718	JP 1983-241028	19831222
	JP 63016431	B4	19880408		
PRAI	JP 1983-241028		19831222		
GI					

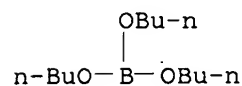


AB Film-forming cements consist of (1) carboxy group or anhydride-contg. high mol.-wt. substances, (2) organometallic compds. contg. Ti, Al, Si, and/or Zr, and (3) the proline derivs. I, II, and III (R1 = alkyl, OH, alkylol, amino; R2 = H, alkyl; Z = O, methylene). Thus, 5.9 g styrene and 4.9 g maleic anhydride was reacted in the presence of Bz2O2 to form maleic anhydride-styrene copolymer [9011-13-6], which was hydrolyzed to produce maleic acid-styrene copolymer [25300-64-5]. A dental cement consisted of liq. A contg. maleic acid-styrene copolymer 10 and EtOH 90 parts and liq. B contg. tetrabutyl titanate [5593-70-4] 2.0, cis-3-aminoproline [25876-88-4] 0.5 and EtOH 100 parts. The **adhesive** strength of a 1:1 mixt. of liq. A and liq. B was 19.9 kg/cm<sup>2</sup>.

IC ICM C09J003-14  
 ICS A61K006-08  
 CC 63-7 (Pharmaceuticals)  
 Section cross-reference(s): 37  
 IT 78-10-4 **121-43-7** 555-31-7 **688-74-4** 2530-85-0  
 3085-30-1 4766-57-8 13421-85-7 18267-08-8 25876-88-4  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (dental cement contg.)  
 IT 546-68-9P 5128-29-0P 5575-43-9P 5593-70-4P 7440-21-3DP, org.  
 compds. 9011-13-6P 24980-59-4P 25266-27-7P 25300-64-5P  
 25722-45-6P **26007-37-4P** 26298-63-5P 26426-80-2P  
 28062-21-7P 28327-80-2P 30374-71-1P 36193-45-2P 36609-92-6P  
 58247-86-2P 80778-56-9P 90751-14-7P  
 RL: THU (Therapeutic use); BIOL (Biological study); **PREP**  
**(Preparation)**; USES (Uses)  
 (prepn. of, for dental cements)  
 IT **121-43-7 688-74-4**  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (dental cement contg.)  
 RN 121-43-7 HCAPLUS  
 CN Boric acid (H3BO3), trimethyl ester (8CI, 9CI) (CA INDEX NAME)

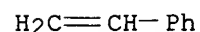


RN 688-74-4 HCAPLUS  
 CN Boric acid (H3BO3), tributyl ester (8CI, 9CI) (CA INDEX NAME)



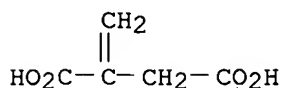
IT **26007-37-4P**  
 RL: THU (Therapeutic use); BIOL (Biological study); **PREP**  
**(Preparation)**; USES (Uses)  
 (prepn. of, for dental cements)  
 RN 26007-37-4 HCAPLUS  
 CN Butanedioic acid, methylene-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1  
 CRN 100-42-5  
 CMF C8 H8



CM 2  
 CRN 97-65-4

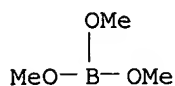
CMF C5 H6 O4



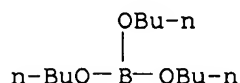
L57 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1986:10650 HCAPLUS  
 DN 104:10650  
 TI Film-forming dental cements  
 IN Kawaguchi, Toshio; Kunimoto, Shinichiro; Kusumoto, Koji  
 PA Tokuyama Soda Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 16 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60135468	A2	19850718	JP 1983-241027	19831222
	JP 63016434	B4	19880408		
PRAI	JP 1983-241027		19831222		
AB	Film-forming cements consist of (1) carboxyl group or anhydride-contg. polymers (2) organometallic compds. contg. Ti, Al, Si, and or Zr, and (3) .beta.-hydroxyalkylcarboxylate R1CO2CR2R3CR4R5OH (R1 = H, alkyl, alkenyl; R2-R5 = H, alkyl, alkylol, acyloxyalkyl). Thus, 5.2 g styrene and 4.9 g maleic anhydride were reacted in the presence of Bz2O2 to form maleic anhydride-styrene copolymer [9011-13-6] which was hydrolyzed to produce maleic acid-styrene copolymer [25300-64-5]. A dental cement consisted of liq. A contg. maleic acid-styrene copolymer 10 and EtOH 90 parts, and liq. B contg. tetrabutyl titanate [5593-70-4] 2, 2-hydroxyethyl formate [628-35-3] 1 and EtOH 100 parts. The <b>adhesive</b> strength of a 1:1 mixt. of liq. A and liq. B was 25.6 kg/cm2.				
IC	ICM C09J003-14 ICS A61K006-08				
CC	63-7 (Pharmaceuticals) Section cross-reference(s): 37				
IT	78-10-4 105-46-4 <b>121-43-7</b> 546-68-9 555-31-7 628-35-3 <b>688-74-4</b> 818-61-1 868-77-9 999-61-1 3085-30-1 4219-46-9 4766-57-8 5128-29-0 5575-43-9 5593-70-4 7429-90-5D, org. compds. 7440-21-3D, org. compds. 7440-32-6D, org. compds. 7440-42-8D, org. compds. 7440-67-7D, org. compds. 13421-85-7 18267-08-8 28497-59-8 50853-28-6 52174-50-2 80778-56-9 100155-30-4 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (dental cements contg.)				
IT	9011-13-6P 24980-59-4P 25266-27-7P 25300-64-5P 25722-45-6P <b>26007-37-4P</b> 26298-63-5P 26426-80-2P 28062-21-7P 28327-80-2P 30374-71-1P 38193-45-2P 38809-92-6P 58247-86-2P 90751-14-7P RL: THU (Therapeutic use); BIOL (Biological study); <b>PREP</b> ( <b>Preparation</b> ); USES (Uses) (prepn. of, for dental cements)				
IT	<b>121-43-7 688-74-4</b> RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (dental cements contg.)				

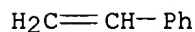
RN 121-43-7 HCAPLUS  
 CN Boric acid (H3BO3), trimethyl ester (8CI, 9CI) (CA INDEX NAME)



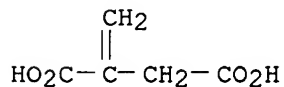
RN 688-74-4 HCAPLUS  
 CN Boric acid (H3BO3), tributyl ester (8CI, 9CI) (CA INDEX NAME)



IT **26007-37-4P**  
 RL: THU (Therapeutic use); BIOL (Biological study); **PREP**  
**(Preparation)**; USES (Uses)  
 (prepn. of, for dental cements)  
 RN 26007-37-4 HCAPLUS  
 CN Butanedioic acid, methylene-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 100-42-5  
 CMF C8 H8

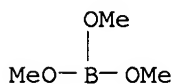


CM 2  
 CRN 97-65-4  
 CMF C5 H6 O4

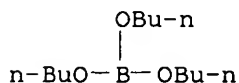


L57 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1986:10647 HCAPLUS  
 DN 104:10647  
 TI Dental cements containing organometallic compounds and carboxylic acids  
 PA Tokuyama Soda Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 18 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60123573	A2	19850702	JP 1983-230564	19831208
	JP 63039032	B4	19880803		
PRAI	JP 1983-230564		19831208		
AB	Dental cements consist of: (1) carboxyl group or carbonic anhydride group-contg. polymers, (2) organometallic compds. selected from organotitanates, organoaluminates, organosilicates, organozirconates and organoborates, and (3) <b>adhesives</b> contg. C(CO <sub>2</sub> H)COR linkage where R = H, alkyl or acyl. The cements are stable in a single soln. Thus, 5.2 g styrene and 4.9 g maleic anhydride were reacted in the presence of benzoyl peroxide to obtain maleic anhydride-styrene copolymer [9011-13-6], which was then hydrolyzed to give maleic acid-styrene copolymer [25300-64-5]. A cement was prepd. comprising liq. A contg. maleic acid-styrene copolymer 10 and EtOH 90 parts, and liq. B contg. tetra-n-butyl titanate [5593-70-4] 2, .beta.-ethoxypropionic acid [38809-92-6] and EtOH 100 parts.				
IC	ICM C09J003-00				
	ICS A61K006-08				
ICA	C09J003-14				
CC	63-7 (Pharmaceuticals)				
	Section cross-reference(s): <b>37</b>				
IT	78-10-4P <b>121-43-7P</b>	300-85-6P	546-68-9P	555-31-7P	
	<b>688-74-4P</b>	2530-85-0P	2843-16-5P	3085-30-1P	4374-62-3P
	5128-29-0P	5575-43-9P	7429-90-5DP, org. compds.	7440-21-3DP, org. compds.	7440-32-6DP, org. compds.
	7440-67-7DP, org. compds.	13421-85-7P	17773-30-7P	18267-08-8P	
	19878-71-8P	24980-59-4P	25266-27-7P	25300-64-5P	25722-45-6P
	<b>26007-37-4P</b>	26298-63-5P	26426-80-2P	28062-21-7P	
	28214-64-4P	28327-80-2P	30374-71-1P	38193-45-2P	38809-92-6P
	58888-76-9P	74266-29-8P	80778-56-9P	87877-75-6P	89794-85-4P
	90751-14-7P	99451-14-6P	99451-15-7P		
	RL: <b>PREP (Preparation)</b>				
	(prepn. of, for dental cement)				
IT	9011-13-6P				
	RL: THU (Therapeutic use); BIOL (Biological study); <b>PREP (Preparation)</b> ; USES (Uses)				
	(prepn. of, for dental cements)				
IT	<b>121-43-7P 688-74-4P 26007-37-4P</b>				
	RL: <b>PREP (Preparation)</b>				
	(prepn. of, for dental cement)				
RN	121-43-7	HCAPLUS			
CN	Boric acid (H <sub>3</sub> BO <sub>3</sub> ), trimethyl ester (8CI, 9CI) (CA INDEX NAME)				



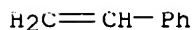
RN 688-74-4 HCAPLUS  
 CN Boric acid (H<sub>3</sub>BO<sub>3</sub>), tributyl ester (8CI, 9CI) (CA INDEX NAME)



RN 26007-37-4 HCAPLUS  
 CN Butanedioic acid, methylene-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

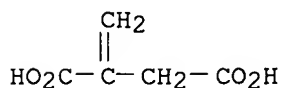
CM 1

CRN 100-42-5  
 CMF C8 H8



CM 2

CRN 97-65-4  
 CMF C5 H6 O4



L57 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1986:10646 HCAPLUS  
 DN 104:10646  
 TI **Adhesive** film-forming materials for dental and skin use  
 PA Tokuyama Soda Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 15 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60122569	A2	19850701	JP 1983-230565	19831208
	JP 04014030	B4	19920311		
PRAI	JP 1983-230565		19831208		

AB **Adhesive**, film-forming compns. comprising (1) carboxyl group or carbonic anhydride-contg. high mol.-wt. substances and (2) organometallic compds. selected from Al, silicates, Zr, and borates are useful in wound healing and as dental sealants and dental covering agents. Thus, 5.2 g styrene was reacted with 4.9 g maleic anhydride in the presence of Bz2O2 to produce a maleic anhydride-styrene copolymer (I) [9011-13-6]. A compn. consists of liq. A contg. I hydrolysis product 10 and EtOH 90 parts and liq. B contg. iso-Pr aluminate [555-31-7] 2 and EtOH 100 parts. The **adhesive** strength of a 1:1 mixt. of liq. A and liq. B was 28.7 kg/cm2.

IC ICM A61L027-00  
 ICS A61C013-16

CC 63-7 (Pharmaceuticals)  
 Section cross-reference(s): 37

ST dental sealant organometal polymer; wound healing **adhesive** organometal polymer

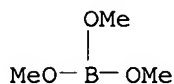
IT Organometallic compounds  
 RL: BIOL (Biological study)  
 (adhesive and film-forming compns. contg., for dental and skin use)

IT 78-10-4 **121-43-7** 555-31-7 **688-74-4** 2171-98-4  
 2269-22-9 2530-85-0 3085-30-1 4766-57-8 7429-90-5D, org. compds.  
 7440-21-3D, org. compds. 7440-42-8D, org. compds. 7440-67-7D, org. compds. 18267-08-8  
 RL: BIOL (Biological study)  
 (adhesive and film-forming compns. contg., for dental and skin use)

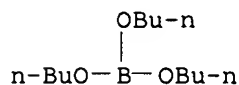
IT 9011-13-6P 24980-59-4P 25266-27-7P 25300-64-5P 25722-45-6P  
**26007-37-4P** 26298-63-5P 26426-80-2P 28062-21-7P  
 28327-80-2P 30374-71-1P 38193-45-2P 38809-92-6P 58247-86-2P  
 90751-14-7P  
 RL: **PREP (Preparation)**  
 (prepn. of, as adhesive and film-forming agent for dental and skin use)

IT **121-43-7 688-74-4**  
 RL: BIOL (Biological study)  
 (adhesive and film-forming compns. contg., for dental and skin use)

RN 121-43-7 HCAPLUS  
 CN Boric acid (H3BO3), trimethyl ester (8CI, 9CI) (CA INDEX NAME)



RN 688-74-4 HCAPLUS  
 CN Boric acid (H3BO3), tributyl ester (8CI, 9CI) (CA INDEX NAME)

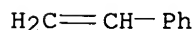


IT **26007-37-4P**  
 RL: **PREP (Preparation)**  
 (prepn. of, as adhesive and film-forming agent for dental and skin use)

RN 26007-37-4 HCAPLUS  
 CN Butanedioic acid, methylene-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

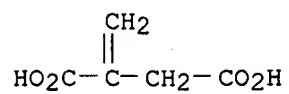
CRN 100-42-5  
 CMF C8 H8





CM 2

CRN 97-65-4  
CMF C5 H6 O4





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Dossier: 10081266

Legal Date: 09-26-2003

No.	Doccode	Number of pages
1	CTRS	7

Total number of pages: 7

Remarks:

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